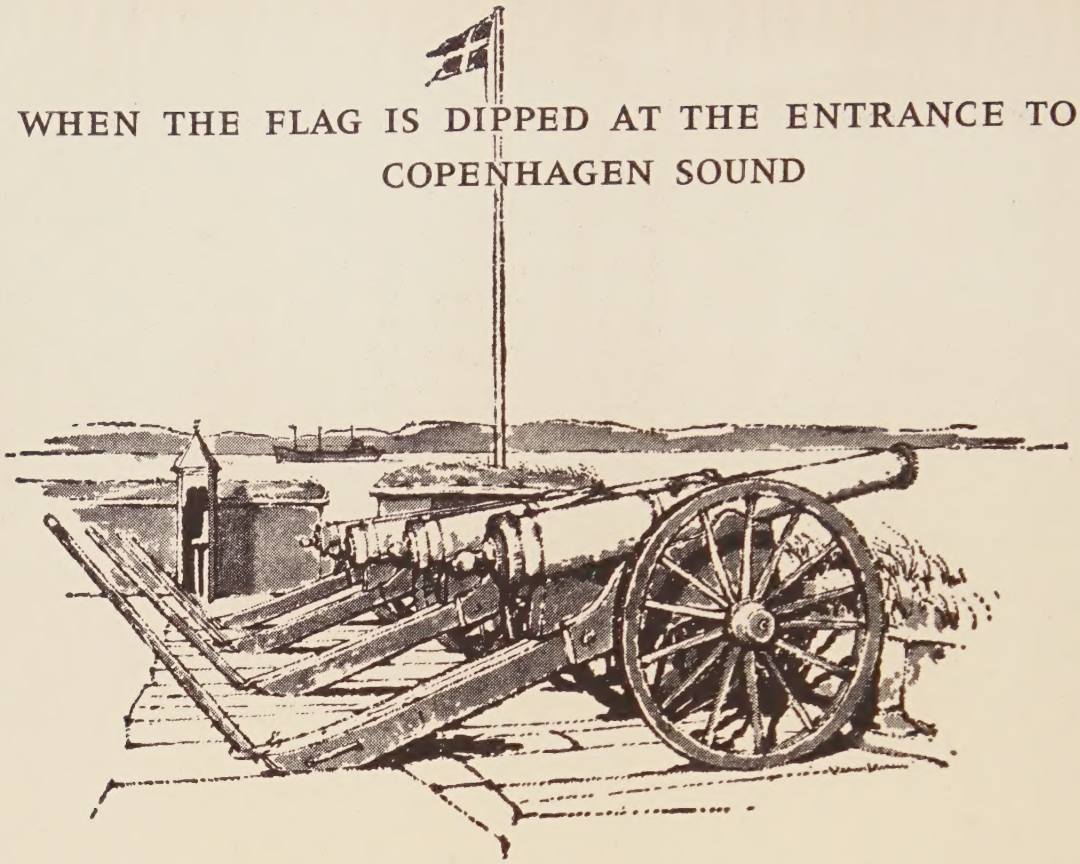
DANISH FOREIGN OFFICE JOURNAL

NUMBER 35

1960

WHEN THE FLAG IS DIPPED AT THE ENTRANCE TO COPENHAGEN SOUND



When late-medieval ships stood into the narrow Sound between Denmark and Sweden, the cannons roared their warning from the Kronborg Castle bastions for the captains to drop their anchors and pay Toll on their cargoes. More than five centuries later, this heavy Toll has given way as a national source of income to exports and the roar of the guns has been succeeded by a warm-hearted tradition followed to this very day: when the flag is dipped at Kronborg it is meant as a greeting to the crews from the Commandant of Prince Hamlet's ancient castle: Godspeed and Bon Voyage!

The same respect for tradition prevails in the house of Cherry Heering. Now as then, ships stand off the Sound, many of them loaded with the famous liqueur of Denmark. Now as more than a hundred years ago, the Heering family sends its own ships overseas to serve as Ambassadors for the things which make the stately Peter F. Heering mansion in Copenhagen the centre of a far-flung organization: cherry trees in bloom in the vast Heering orchards, the old oak casks in the cellars, a business spirit deeply rooted in bygone years, and the fair name and fame of Cherry Heering. Unimpaired through good times and bad, the flavour of Cherry Heering is as strong and as sterling as it was in the days of the Sound Toll, and on every foreign shore – from San Francisco to Singapore – from Melbourne to Montevideo – the flag is dipped to loyal friends in the tradition of enjoyment: Cherry Heering – cheers!

CHERRY HEERING

PETER F. HEERING - COPENHAGEN - DENMARK

DANISH FOREIGN OFFICE JOURNAL

COMMERCIAL & GENERAL REVIEW

THE WORLD'S OLDEST SAVINGS BANK

A small district savings bank in a corner of Denmark is the oldest existing savings bank in the world; its chairman is the great-grandson of the founder. On the occasion of its 150th anniversary we give here an account of the Danish system of savings banks, which in spite of their resemblance to commercial banks chiefly function according to the motto of "helping those who help themselves". By Ejnar Qvist..... *page 9*

TRAINING THE SEMI-SKILLED

A new Act on the Occupational Training of Semi-skilled Workers provides a modern supplement to the traditional vocational training and aims at coordinating the various training schemes. The Act can have importance for nearly half a million Danish workers. By Gunnar Coln..... *page 13*

AN UNDERWATER DIG

What was the peril which threatened the Danish Viking settlement, since they sank a fleet of fine ships to block the channel leading to their town? Did they avert the danger, or was the sacrifice in vain? It is unlikely that we shall ever know. But the amazing find and its exploration—under water—are thrilling in themselves. The leader of the "dig" decribes this unusual work. By Olaf Olsen..... *page 16*

TOURNAMENTS IN THE SPACE AGE

By Knud Ellesøe; drawings by Holger Worm ..... *page 20*

A QUALITY MARK FOR FURNITURE

The long-established quality mark of Danish butter and bacon, consisting of a pair of intertwined lurs, has found a counterpart in the furniture trade, in a mark which guarantees high standards of craftsmanship. By Else Sandvad. ..... *page 22*

A KANGAROO FOR A CONCERT

The adoption of ships by schools is a work of great educational value on the one hand and a piece of useful public relations on the other. Every sixth ship in the Danish merchant navy engaged in overseas trade now has a direct link with a school at home. By Børge Mikkelsen. ..... *page 24*

PREPARED FOR PREPACKED

Sales of prepacked bacon form as yet only a small fraction of the total exports of Danish bacon, Denmark's biggest export line. But Danish farmers and bacon factories are prepared to meet an observed change in consumer habits, thanks to teamwork in market survey, research, and production. By Arne Christiansen. *page 26*

THREE BROTHERS AND A CALCULATOR

Danish office machinery is well known. A Danish family business, which grew rapidly from basement to factory, has now designed a new, cheap, and convenient calculating machine; patented in 40 countries, it has achieved great sales in the course of three years. By Kristen Hesselager..... *page 27*

EXPORTING INSULATION

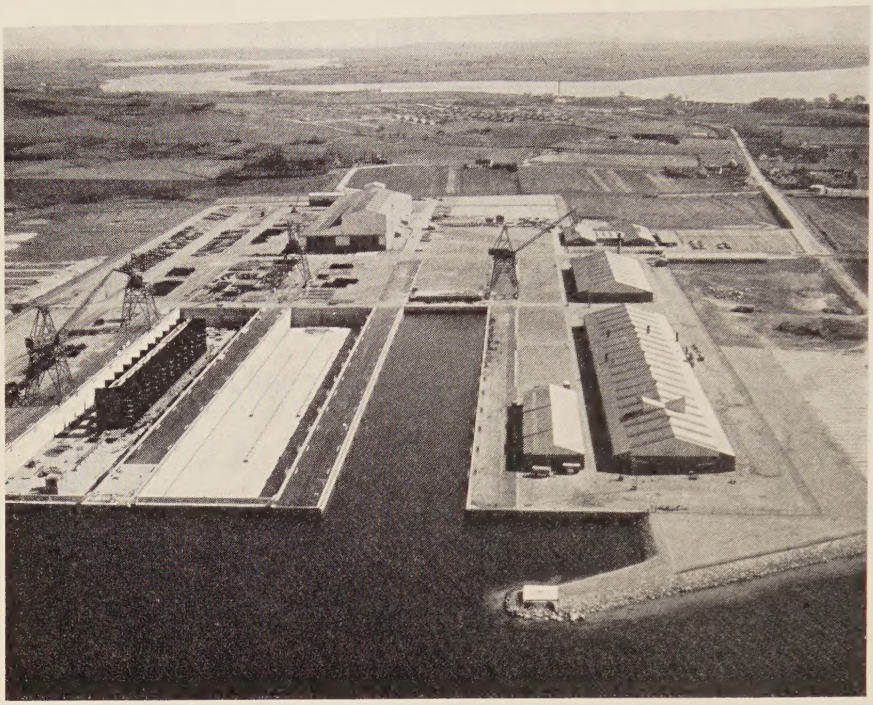
Danish technology was in at the start of building insulation and is still foremost in industrial and marine insulation against loss of heat, moisture, and coldness. Sound insulation in factories is another important line. Some material is 98 per cent air. By K. Henning Pedersen....*page 29*

The busy Copenhagen street Vesterbros Passage, as seen from the City Hall Square, is the subject of the cover. Our artist, Alex Secher, got rather wet while drawing the entrance to the Tivoli pleasure gardens (left) and the 20-storey SAS Royal Hotel, the latest landmark of the Danish capital. While painting, Mr. Secher put up his easel where the wall of old Copenhagen stood

NUMBER 35 . NOVEMBER 1960

Numbered serially, irrespective of the year

PRINTED IN DENMARK



A. P. Møller's shipyard "Lindø" on Funen - first Danish dry-dock treated with VANDEX.

against moisture and water penetration.

VANDEX waterproofing compound is successfully applied in different fields of insulation works, such as in dry-docks, tunnels, and mining districts. Advantageously applied for the insulation of oil tanks against acidattacks and water penetration. Flat concrete roofs may be insulated with VANDEX only, thus rendering superfluous any application with asphalt or roofing-felt. Important in building industries for the treatment of walls, foundations, parapets, etc.

Well-reputed agents or licence manufacturers for our articles desirable in any English-speaking country.

Vandex

B. V. Laboratoriet,
Mejlgade 47,
AARHUS - Denmark.

A SAFEGUARD FOR COMFORT AND ECONOMY

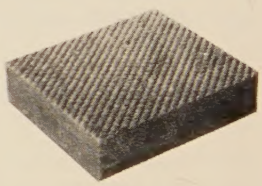
After nearly 25 years of pioneering, Danish Rockwool has become the foremost insulating material for Danish architects and engineers.

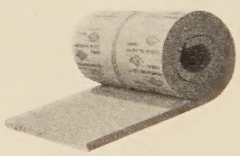
The inorganic fibres offer an efficacious protection against cold, heat, fire, and sound. To further improve the original product of nature, one more advantage has been added: the impregnation of Rockwool, which enables the material to completely resist any attack of moisture and rot.

In Denmark, Sweden, Norway, and Western Germany six factories are covering the markets, and the wide range of Rockwool materials simply provides a solution to any problem about insulation.

The illustrations to the right are showing four products that have created a firm interest at our outlets abroad.

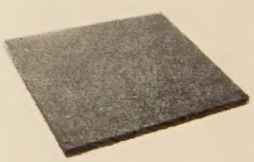
ROCKWOOL BATTS
Used in hollow walls and for insulation of roof constructions.





ROCKWOOL MAT, TYPE III
Great resistance against compression makes this new mat extremely useful for technical insulation.

ROCKWOOL SHEETS
Used in the concreting of floating floors.



ROCKWOOL PIPE SECTIONS
Ready-made coverings for pipes of smaller dimensions.

A/S ROCKWOOL

CODANHUS, 60, GL. KONGEVEJ, COPENHAGEN V., DENMARK

ROCKWOOL

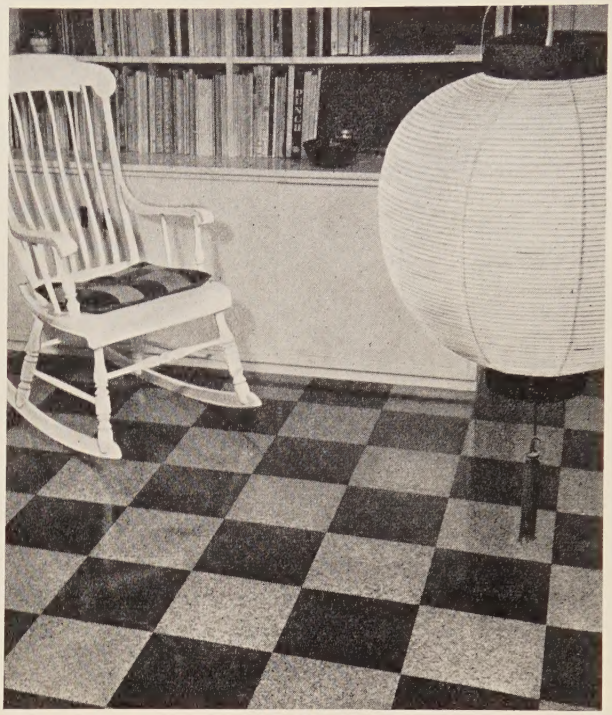
The Molly Family

Top grade milk products throughout half a century

THE DANISH CONDENSED MILK FACTORY LTD.

HEAD OFFICE AT NAKSKOV - DENMARK

TELEGRAMS: KONDENS



EXPANKO

Cork Flooring Tiles

A/S SANO

Manufacturers of
Cork Flooring Tiles
and
Corkboard Insulation
Materials

EXPORT OFFICE: GODTHÅBSVEJ 142, COPENHAGEN F

FLAMINGO FOAM

insulating materials

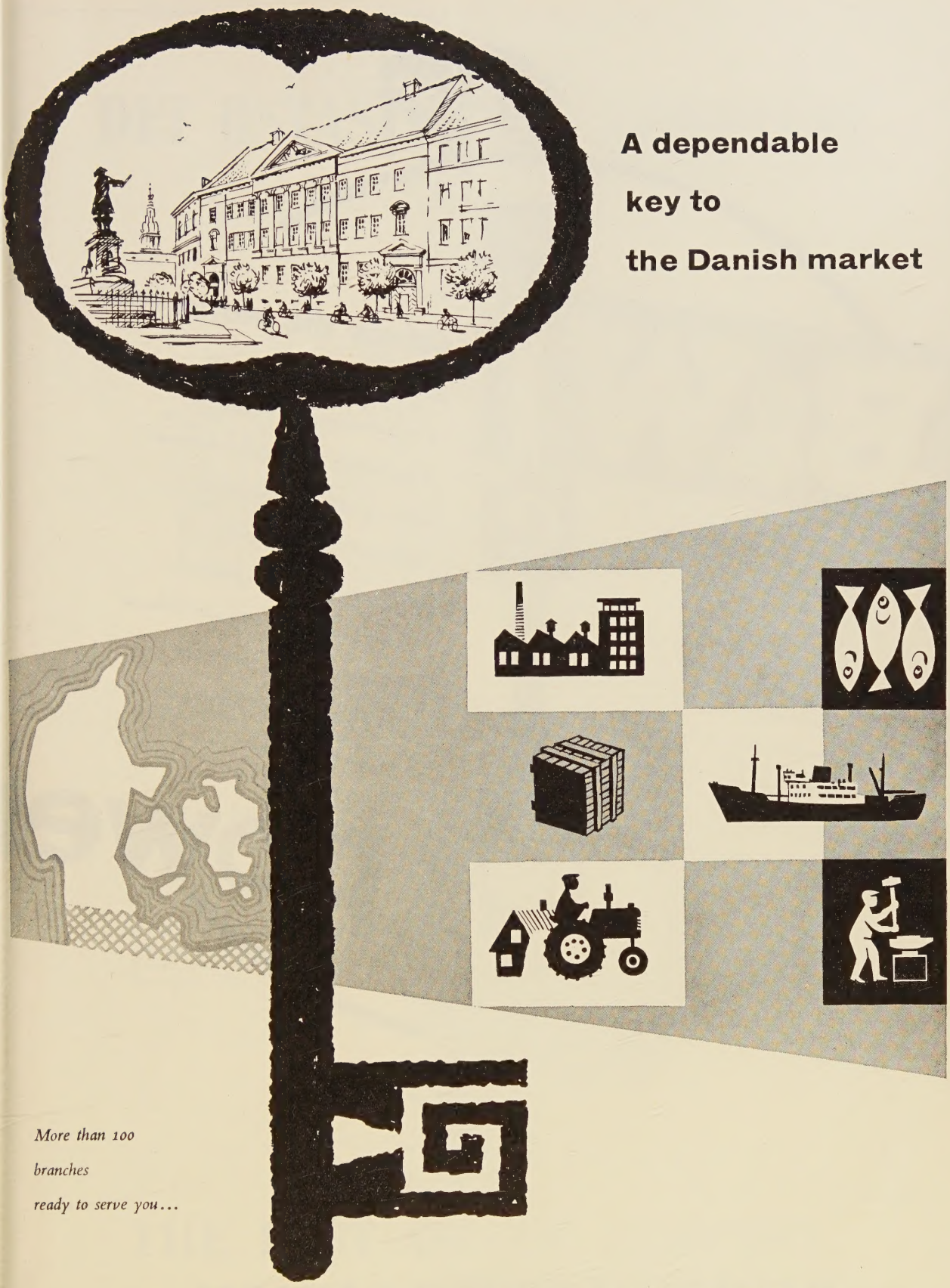
Automatic Plants

ENQUIRIES
invited from countries
where not yet represented

Technical and
commercial knowhow
supplied

- THE INSULATION WITH THE HIGHEST **POTENTIAL**
IN MODERN BUILDING CONSTRUCTIONS

FLAMINGO FOAM A/S . 3. GUSTAV ADOLFSGADE . COPENHAGEN Ø



A dependable

key to

the Danish market

More than 100

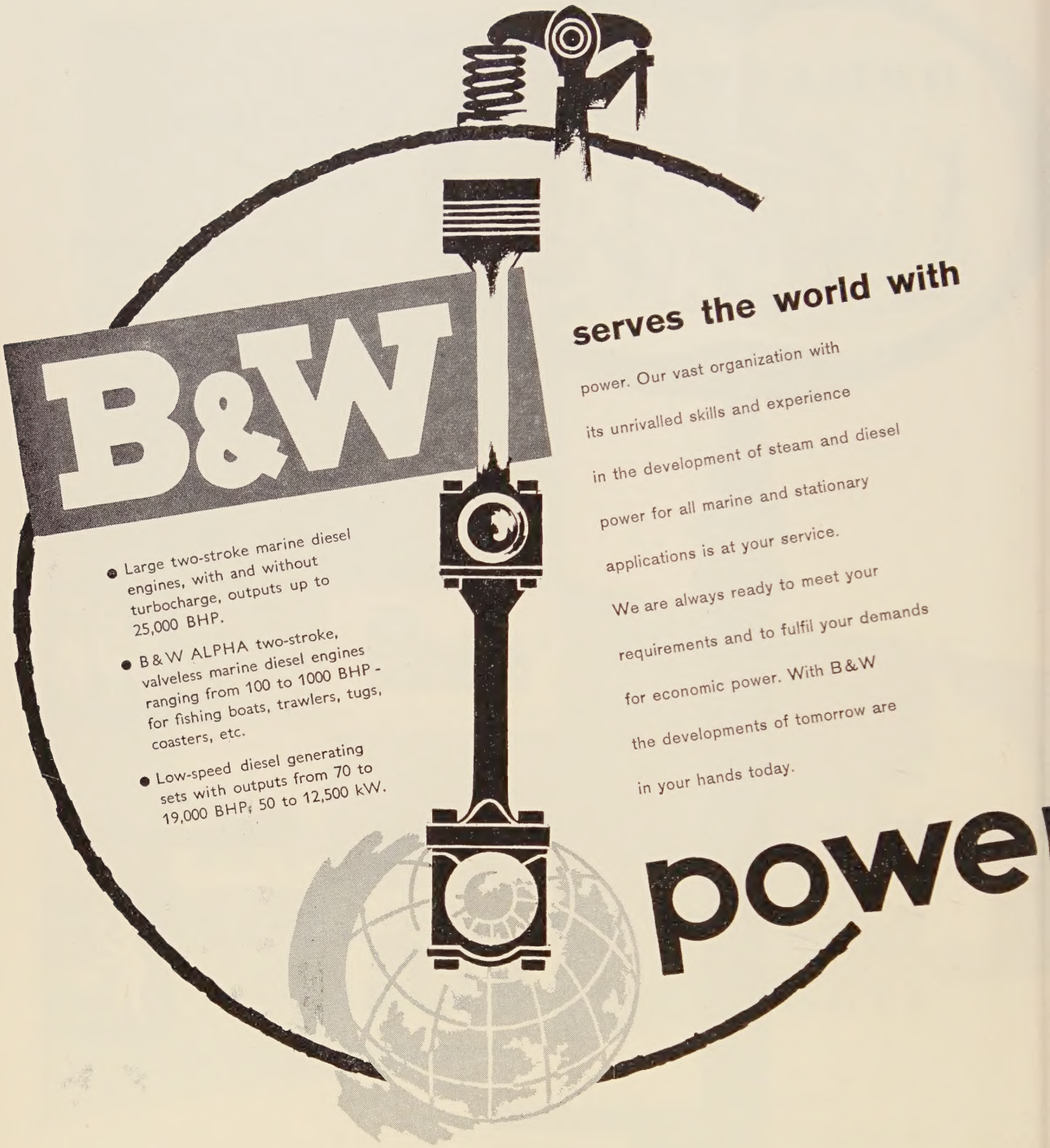
branches

ready to serve you...

DEN DANSKE LANDMANDSBANK

Head Office: 12, Holmens Kanal . Copenhagen K

Cable address: »Landmandsbank« ⋆ Telex 2407 ⋆ Telephone: Central 6500

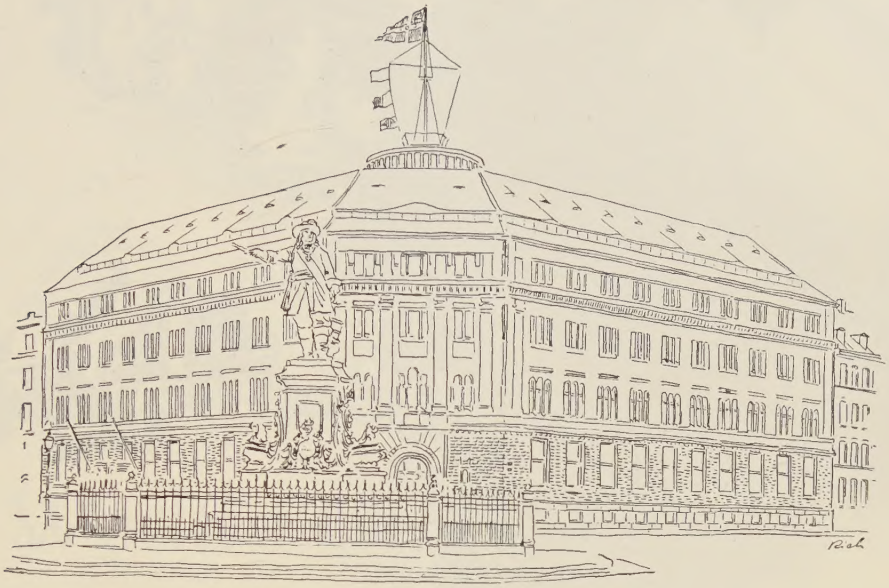


BURMEISTER & WAIN

Copenhagen Denmark

AKTIESELSKABET

DET ØSTASIATISKE KOMPAGNI



IMPORT OF OVERSEAS PRODUCTS TO EUROPE.
EXPORT OF EUROPEAN GOODS TO ALL PARTS OF THE WORLD.
INDUSTRIAL PLANTS, PLANTATIONS, SAWMILLS AND FORESTRY IN ASIA, AFRICA, SOUTH AMERICA AND CANADA.

REGULAR SAILINGS TO AND FROM
CEYLON, INDIA, PAKISTAN, BURMA, MALAYA, INDONESIA THAILAND, VEITNAM, THE PHILIPPINES, CHINA, JAPAN, AUSTRALIA, NEW ZEALAND, NEW YORK, THE WEST INDIES, CENTRAL AMERICA AND THE PACIFIC COAST OF NORTH AMERICA.

OWN OFFICES: Argentina, Australia, Congo, Brazil, Burma, Cambodia, Canada, Colombia, Chile, France, Germany, Ghana, Great Britain, Honkong. India, Indonesia, Italy, Japan, Kenya, Laos, Malaya, Nigeria, Pakistan, Paraguay, The Philippines, S. Rhodesia, Ruanda Urundi, Singapore, The Union of South Africa, Tanganyika, Thailand. Uganda, U. S. A., Vietnam, The Virgin Islands.

THE EAST ASIATIC COMPANY

LIMITED

2, HOLBERGSGADE
COPENHAGEN, DENMARK

TELEPHONE: CENTRAL 8300
TELEGRAMS: ORIENT

DET FORENEDE DAMPSKIBS-SELSKAB

AKTIESELSKAB

(THE UNITED STEAMSHIP COMPANY, Limited)

COPENHAGEN

DANISH FOREIGN OFFICE JOURNAL
NUMBER 35 . NOVEMBER 1960

The World's Oldest Savings Bank

By Ejnar Qvist
Chairman of the Association of Danish Savings Banks

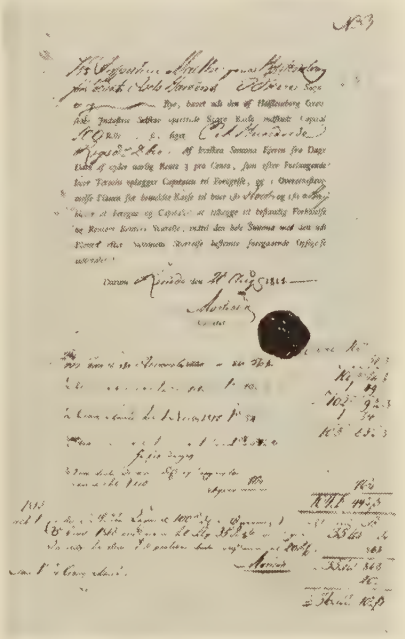
A small district savings bank in a corner of Denmark is the oldest existing savings bank in the world; its chairman is the great-grandson of the founder. On the occasion of its 150th anniversary we give below an account of the Danish system of savings banks, which in spite of a certain resemblance to commercial banks chiefly function according to the motto of 'helping those who help themselves'

The impoverishment of the Danish nation due to the Napoleonic Wars lay behind the establishment of the Holsteinborg County Savings Bank (*Sparekassen for Grevskabet Holsteinborg og Omegn*)—one of the first savings banks in the world and the oldest of those still in existence.

There was good reason for promoting thrift among the general public, just as there was a great need of savings for national reconstruction.

Holsteinborg Savings Bank was founded on November 2, 1810—150 years ago. The founder was one of the leading figures in the economic and social educational work of that time, Count Frederik Adolph Holstein, and his great-grandson, Count Erik Holstein, is the bank's present chairman.

Holsteinborg Savings Bank was not only the first savings bank in Denmark, it was the first unofficial bank of any kind: the first commercial bank was not established until 1846, and the only Danish bank in existence before 1810 was the Government bank of issue.



The oldest savings-bank book, issued by the 150-year-old Holsteinborg Savings Bank. The book belonged to a soldier, Niels Hansen, who opened his account with 100 rigsdalers

The first approach to something like savings banks was made in Germany in the second half of the eighteenth century, in the form of some cultural and philanthropical institutions. The first true savings bank is held to be that at Ruthwell in Scotland, which was founded in the summer of 1810 and has recently celebrated its 150th anniversary with a big international attendance. It was followed a few months later by the Holsteinborg Savings Bank, which unlike the Scottish bank was from the start a mortgage bank as well. It is a remarkable fact that the first savings banks sprang up almost simultaneously in many countries. In the years 1818–22 some were established in Finland, Norway, Sweden, France, Austria, Italy, and the United States.

Saving for Security

A double motive underlay the foundation of Holsteinborg Savings Bank. On the one hand there was a desire to stimulate saving, in particular among the

poorer population of the county, so helping to ensure a more orderly and sound economy. The means of saving by ordinary people in those days were very few. There were no banks, the only methods being 'the bottom drawer' and private lending, with the attendant risks of loss. This was where the newly founded savings bank came in, offering both security and interest. The call to save squared with the contemporary moral view which condemned luxury and extolled moderation. The bank's basic idea was to assist those who were prepared to assist themselves.

Lending for Production

Similar motives underlay the establishment of the first savings banks in nearly every other country. More remarkable is the fact that the founder of the first Danish savings bank had a second object: it was his idea that money deposited should benefit local production by means of loans. In the articles it was expressly stated that borrowers should apply their loans productively; for example, by 'purchasing implements and tools for agriculture and handicrafts, improving land by means of digging and ditching, quarrying stone or building fences, purchasing cattle or other livestock'.

The founder was thus alive from the outset to the importance of saving, not only to the individual, but also to the country's reserves. In contrast, the Scottish bank at Ruthwell was purely a savings bank, which did not make loans from its deposits. This is still a feature of savings banks in Great Britain and various other countries.

From the start, Holsteinborg Savings Bank embodied all the essential features which today make the savings banks of Denmark an indispensable part of the Danish community: their connection with the local population and local enterprise; the idea of encouraging savings and thrift among the general population; the emphasis on lending the deposited funds for productive purposes; and, finally, the idealistic character.

The Local Connection

A century and a half of development has established a decentralized system of savings banks in Denmark. There are today about 475 independent savings banks with approximately the same number of subbanks, giving all told a little over 900 offices. This is about one office to every 5,000 inhabitants. A similar density is found in Finland, Norway, and Sweden,

In a competition for posters to mark the 150th anniversary of the Danish savings banks, open to artists under 30, prizes were awarded for the three designs by Preben Voss and Henning Jørgensen (above), Ole Zøfting-Larsen (centre), and Henning Jørgensen and Lasse Madsen (below)

and in parts of France, West Germany, and the United States. The systems are more centralized in, for example, the United Kingdom, Italy, Spain, Belgium, and Argentina.

By about 1850 there were still only some 40 savings banks in Denmark, nearly all of them town banks chiefly serving the urban population. About that time the farm population developed a movement for greater independence, stimulated in part by agricultural prosperity and in part by the inspiration gained from the folk high schools. Wishing to free themselves from urban influence, the farmers established a number of rural savings banks, though for practical reasons these have their head offices in the towns.

That was only a beginning. In the ten-year period 1866–75, nearly 300 small 'parish' savings banks were established to cater for a single parish or for a few parishes. 'Local money for local enterprise' was the motto; and the explanation was that the farmers needed capital for the conversion, in those and the following years, from cereal production to livestock production and dairy-farming. The record was reached in 1873, when 82 savings banks were established: nearly one every four days.

Decentralization

The Danish system had thus achieved its present structure, made up of a few large savings banks, a number of medium-sized ones, and a considerable number of quite small rural savings banks.

Since the beginning of the century the number has shown a slight fall, as part of a moderate centralizing movement. The very small units with non-professionally trained staffs and small financial resources have difficulty in meeting present-day competition, and some have become branches of bigger units. But decentralization remains a characteristic feature of Danish savings banks.

It should be added that the commercial banks are also decentralized, as there are rather more than 150 separate units, with about 1,000 branches. The total number of offices of savings and commercial banks together is over 2,000; that is to say, there is one to every 2,000 or so inhabitants. That is why there is no Post Office savings bank in Denmark.

Holsteinborg Savings Bank had as its primary object the encouragement of saving among people of small means. A limit was set to the amount which any saver might deposit. The savings banks of many countries still impose such limits,

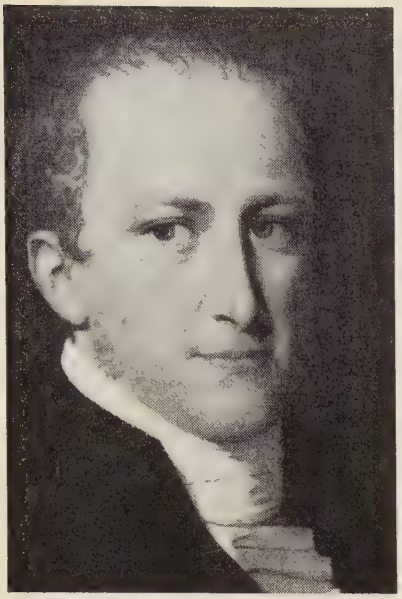
but in Denmark they have long since been abolished. Any person may deposit as much as he likes.

Nevertheless the Danish savings banks continue to be principally bankers for the small depositor. This is revealed by the fact that there are nearly four million deposit accounts: practically one to every inhabitant. A survey has shown that the majority of the accounts are opened by children, wage-earners, and farmers. Business people chiefly employ the commercial banks.

Encouraging Thrift

Danish savings banks consider it an educational responsibility to encourage personal thrift among the ordinary people, and a number of special savings schemes have been sponsored to that end. School savings are organized at nearly every school, and there are also well-established schemes whereby young people can save in order to set themselves up in their own trade or business. Savings clubs exist at a great many workplaces. In recent years, many savings banks have begun collecting small sums at depositors' homes by agents who call regularly to sell savings stamps. The savings banks have also sponsored special schemes for pensions savings, savings for dependent children, and so on. Some of these schemes are encouraged by tax reliefs, while of course the savings banks also participate in general savings measures which receive tax benefit.

It may be added that the average deposit per account is about 1,800 kroner (£90 sterling, 250–300 US dollars); from which it will be obvious that the accounts are mainly small ones.



The founder of Holsteinborg Savings Bank, Count Frederik Adolf Holstein

The King and the Savings Bank

The King and Queen attended the anniversary celebrations of the Holsteinborg Savings Bank, together with the Prime Minister, the Minister of Finance, the Minister of Commerce and the entire staff of the Savings Bank, junior employees included.

Business Lending

As mentioned above, the first Danish savings bank lent the funds deposited with it to local enterprises. Other savings banks established up to 1820 did the same. But those which were founded in after-years chose another method. Regarding themselves as pure savings banks, and not mortgage institutions, they invested the deposited funds in Government securities.

This procedure soon provoked criticism, as it was complained that the savings banks were drawing capital away from local enterprise. Then from the middle of the nineteenth century it once more became the general rule for savings banks to advance loans. It has remained so ever since, and no Danish savings banker

Before the anniversary, the Holsteinborg Savings Bank modernized its premises; in their previous layout they were typical of a local Danish savings bank – but are now fully up to date, with all the latest in floor and office techniques

could today imagine it otherwise. The lending activities are regarded as just as important a feature of the work of savings banks as the acceptance of deposits. The same is true in the rest of Scandinavia and in most other countries. But it is still the general rule in Britain and France that savings banks do not advance loans.

About 70 per cent of the assets of Danish savings banks now take the form of money on loan. Of this amount, 40 per cent consists of private mortgages on property, the remainder being loans to local governments and cooperative societies and against security, pledge, and cash credit. The recent trend has been in favour of shorter-term loans with a quicker turnover—also a feature of the first savings bank. In the case of mortgages the tendency is to advance secondary loans. The savings banks have recently established a scheme of third-mortgage loans for house purchase, and have joined in a newly founded institute that will advance loans on third mortgage to farmers. They also participate in the financing of industrial and craft enterprises through a specially established institute.

A number of loan schemes are so organized that deposits and loans are correlated. Under these arrangements, good savers are granted loans on specially favourable terms when they wish to set up in their own business, build their own house, or establish a home.

As the latest innovation, Danish savings banks have, within certain limits, been empowered to advance loans without special security. It is thought that this arrangement may prove to have particular importance in the case of educational loans.

A Public Service

Danish savings banks are self-governing, non-profit institutions. It follows that they have no object in earning a surplus beyond the level required for reserves. There are no dividends to be paid to shareholders. For this reason they are exempted from taxation.

A small proportion of their surplus is devoted to gifts and grants for useful and charitable objects. But this kind of philanthropy is on nothing like the scale practised, for example, by savings banks in southern Europe. Danish savings banks prefer to render their public service as part of their deposit and loan activity, and in the form of economic educational work.

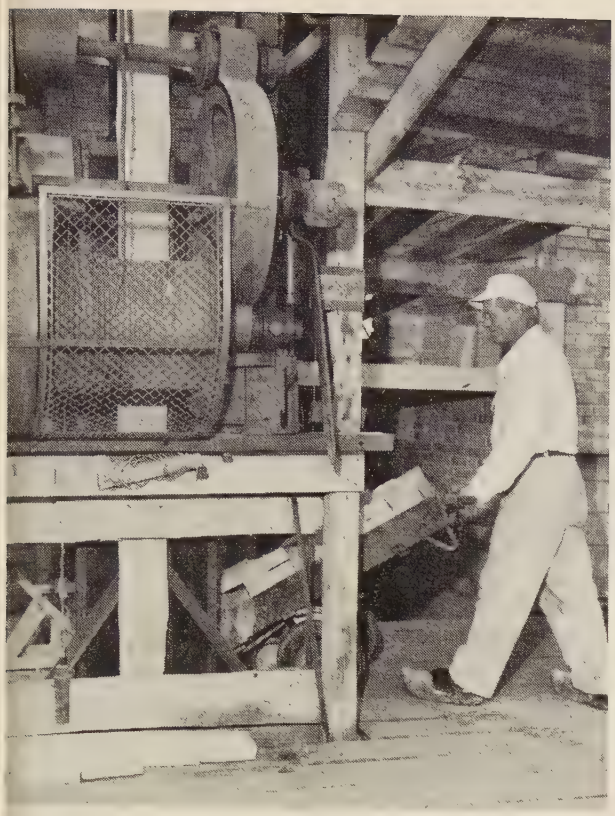
Many of the arrangements referred to above are features of this public service. It includes the expensive work of educating children and young people in good saving habits and thrift. It includes the collecting of small sums at workplaces and private homes. It includes also a number of lending schemes such as establishment loans, educational loans, home-furnishing loans, house-purchase loans, and so on. By means of such loans on favourable terms an endeavour is made to reward the thrifty saver with a sound personal economy.

School Savings

All this forms part of the work of educating the population in thrift. This work is perhaps particularly marked in the schools' savings scheme. It may be added that the savings banks are endeavouring to get lessons in sensible personal economy introduced into schools, and to procure suitable educational material.

Superficially, the work done by savings banks and that of the commercial banks have come to resemble one another: competition forces the savings banks to keep pace. But the principles that were laid down in the first Danish savings bank 150 years ago still govern their activities today. Their endeavours can be briefly expressed in the motto 'helping those who help themselves'. It is that which underlay the establishment of the Holsteinborgs Savings Bank in 1810.

The mobile savings bank can call on customers at any time: it is here paying a weekly visit to a fishing village



The work of bricklayer's labourer and dock worker has been highly mechanized: both have to tend machines, with consequent risks to themselves and others—hence the need for training, as provided in the new Danish Act

Training the Semi-skilled

By Gunnar Coln
Acting Head of Department, Ministry of Labour

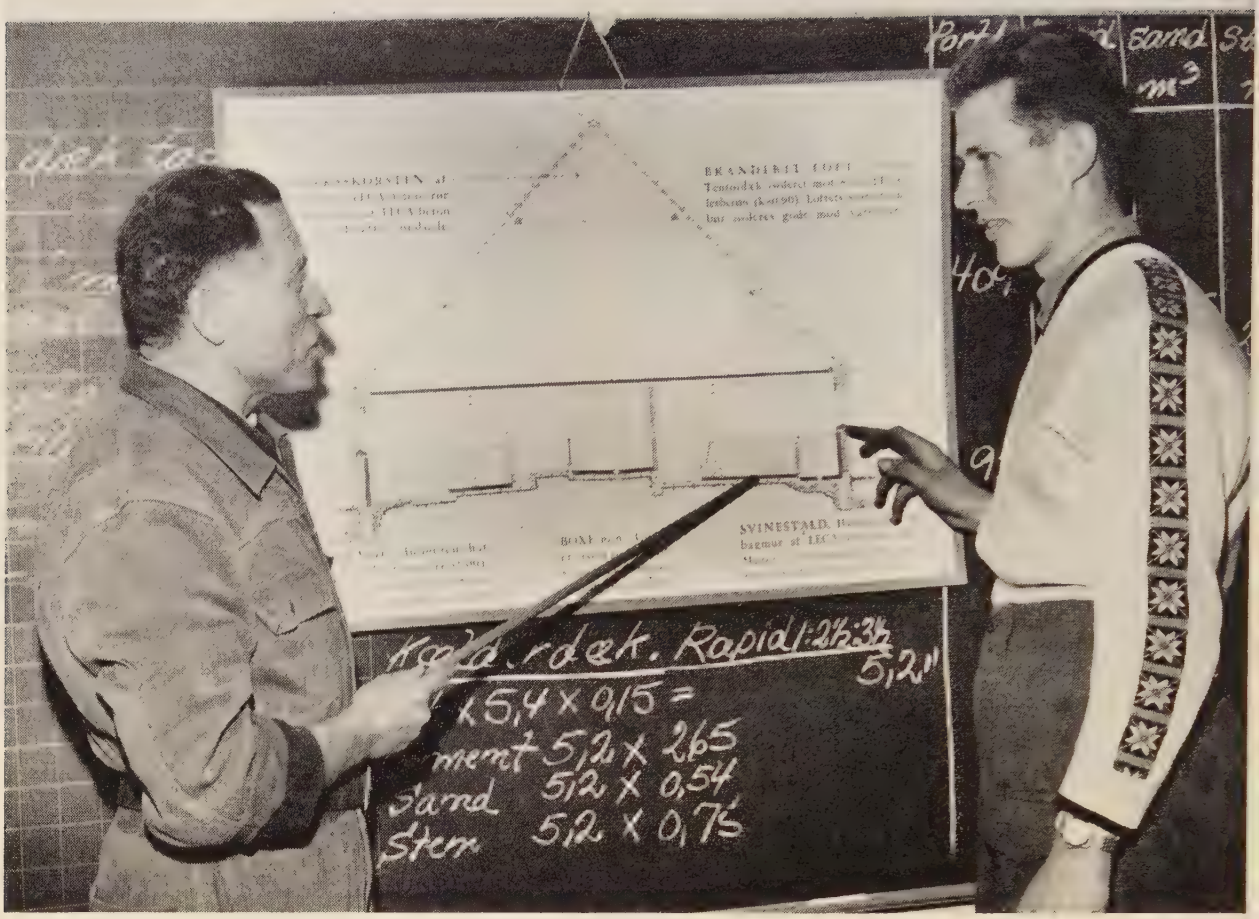
A new Act on the Occupational Training of Semi-skilled Workers provides a modern supplement to the traditional vocational training and aims at coordinating the various training schemes. The Act can have importance for nearly half a million Danish workers

In the Danish labour market there are nearly 800,000 adult men and women workers. This manpower is the asset which compensates us for the absence of domestic raw materials. We have just over 200,000 skilled manual workers and 120,000–150,000 white-collar workers. In addition we have a group of about 400,000 unskilled or semi-skilled workers, who are employed on costly machinery, in responsible jobs, often subject to great occupational risks. The need for up-to-date, thorough, practical, and flexible training of this large group is obvious.

In view of this need Denmark has introduced an Act (of May 11, 1960) on the Occupational Training of Semi-skilled Workers. The Act raises a point which many in other countries have had difficulty in appreciating: the sharp distinction between skilled and semi-skilled workers.

The Act provides a considerable opportunity for raising the standards of semi-skilled workers through training in modern production—necessitated by the increasing demands imposed by technological development. It thus means a narrowing of the gap between the two categories of skilled and semi-skilled workers, though no one would contemplate any qualitative relaxation in the training of skilled workers, which has been based since the Middle Ages, with great benefit, on the system of apprenticeship.

The new Act contains the framework of a system which can be built up and elaborated according to the requirements of the individual semi-skilled worker and



From a lecture at a Government Course for General Workers

the technical requirements of the work, thereby facilitating a flexible and differentiated occupational training and enabling us to work out the desirable transitionary stages between one form of training and another.

Bigger Risks and Responsibilities

In the building and construction trades there are about 72,000 semi-skilled workers, who must know something about various types of machinery, lathes, pneumatic machines, assembly plant, cranes, winches, scaffolding, and so on. They should be able to read a blueprint and appreciate the need for accuracy. To take the metal-working industry: the number of semi-skilled workers here has increased in the course of ten years by 50 per cent, and it would appear that a number of expanding export firms in particular have attracted a large proportion of the approximately 52,000 semi-skilled workers employed in this sector. Export goods must be handled with meticulous care. The same is true of the machinery employed in their production.

In land transport some 42,000 semi-skilled workers are occupied; and since according to expert estimates, half of the repairs which have to be carried out to trucks and lorries are a consequence of wrong handling, it will be appreciated that lack of skill in this field can also become a factor of national economic concern. To take a further example: nearly one-fifth of the approximately 9,000 dock workers operate mechanical gear and are in great need of practical training in their use. Dock work is a dangerous trade; and so all 9,000 workers require training in techniques and safety measures.

The new Act is concerned with the training of adult workers, but in time initial guidance must also be given to future semi-skilled workers in the ordinary schools, where the foundations of further education and training on all levels are laid. In the last compulsory school year children receive guidance on employment possibilities and thus are gradually prepared for the choice of a future career. After the school-leaving age, there are facilities for attending one or two voluntary continuation classes. Those who avail themselves of these facilities are able to make an even closer contact with industry, as, with the assistance of public vocational guidance centres, it is possible to arrange for the children to spend short periods in various establishments—in trade, handicrafts, manufactures, or offices—thus helping them to find out where their inclinations and aptitudes lie. The pupils in these voluntary classes are also set the tasks of preparing reports based on their visits.

From School to Job

Some children leave school at the age of 14 or 15, when compulsory schooling ends. Generally, this is the age at which young persons are apprenticed to a trade—or take a temporary job while they are finding a place as apprentices. But it must be assumed that nearly 50 per cent of the young men and 75 per cent of the young women nowadays go in for semi-skilled work.

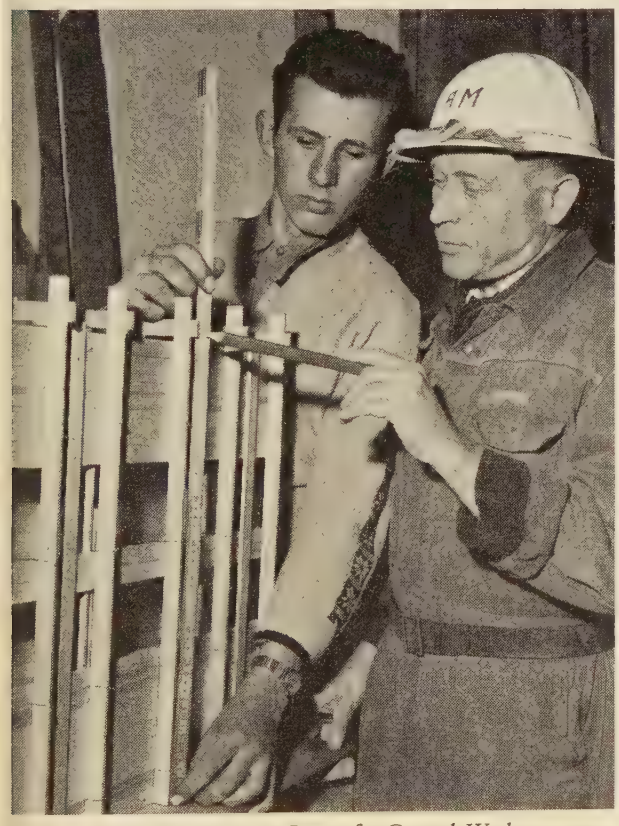
For these young people between the ages of 14–15 and

17–18 there has hitherto been little opportunity for training in the various spheres where they seek their future. The vacuum has this year been filled through an extension of the system of education at voluntary youth schools. These schools are normally attended for one afternoon a week, and attendance is free. The pupils will be given an insight into social affairs and vocational opportunities, and the teaching will be arranged in the closest possible association with practical industry, so as to be of value both to the pupils and their future work sites.

When the young semi-skilled worker reaches the age of 18, the new Act on the Occupational Training of Semi-skilled Workers comes into the picture. Hitherto, only two institutions have given semi-skilled workers any training worth mentioning. One of these is the Technical Labour School (*Arbejdsteknisk Skole*), an evening school, founded in 1940, which has provided a mainly theoretical training in three successive winters, normally of six hours a week. The other institution is the Government Courses for General Workers (*Statens Arbejdsmandskursus*), which were started in 1950 and are run at five boarding schools in various parts of the country. They are open to unemployed semi-skilled workers, who attend three-week courses during the winter.

Mobility of Manpower

The system established by the new Act will enable the individual worker to equip himself by attending a series of separate courses, usually comprising 144 hours, and arranged either as full-day courses lasting three weeks or as evening courses in the winter months. The training will be organized trade by trade, the content being decided by the current requirements. The courses will begin on an elementary basis and will then be gradually extended for advanced pupils. Every worker will be able to enrol for the course that is most appropriate to himself and his work, that improves his qualifications for the job he does, or that qualifies him for a new job. Training by means of such a 'building-up' system can be employed for re-training schemes which may be rendered necessary by changes in industrial opportunities.



From a Government Course for General Workers

Plans Will Follow Trends

It follows that there is no question of a series of cut-and-dried training schemes. All that has been done is to lay down the general outlines of such a training system, the work of filling them in being left to the employer and trade union organizations.

In the principal spheres of industry trade committees composed of representatives of workers and employers will be set up. These committees will take the initiative in building up the training system in practice by devising training schemes and implementing them, and ensuring that at all times they keep abreast of technological developments. By this means it should be possible, trade by trade, to build up a system of comparatively short courses directly adapted to the processes with which the adult worker today has to deal. There will thus be a guarantee that the training will be exactly what is required, and at the same time every reason to expect that the required training will be accepted and appreciated by both sides of industry.

To coordinate the work of the various trade committees a training council has been appointed, whose members, on the whole, are drawn from the organizations, and which will form the link with the Ministries.

State Contributes 85 p. c.

It may be asked who is to pay for all this. Clearly, no one should be prevented from attending the courses by financial barriers. The Act therefore contains provisions which guarantee the workers a means of existence while undergoing training. During training they will receive compensation corresponding to the unemployment benefit to which they would have been entitled. In addition, workers with dependants will receive a supplementary payment which will enable them to meet the essentials in the family budget while they are on the course.

Government loans may be made for the establishment of courses and schools, as well as grants towards teachers' salaries, materials, renting of rooms, and so on. But in all cases it is a condition of Government support that the local governments, organizations or institutions initiating the schemes, as well as the workers who will benefit from the training, between them shall raise at least 15 per cent of the funds required.

Wider Perspectives

It is the further intention of the new system of training to further a steady and even trend of development; to build up the various schemes of training in a flexible manner, so that the most elementary training is linked to the most advanced. To that end the training will as far as possible be coordinated both with the previously mentioned education in general schools and youth schools and with the many, new and old, forms of vocational and technical training.

Roskilde Fjord from the heights above Skuldelev: the wrecks are situated between the two small islands

An Underwater Dig

By Olaf Olsen
Danish National Museum

What was the peril which threatened the Danish Viking settlement, since they sank a fleet of fine ships to block the channel leading to their town? Did they avert the danger, or was the sacrifice in vain? It is unlikely that we shall ever know. But the amazing find and its exploration —under water—are thrilling in themselves. The leader of the 'dig' describes this unusual work

For many years Danish fishermen have reported the presence of a sunken ship, filled with stones, at the bottom of a narrow channel in the fjord leading to the historic town of Roskilde. 'Queen Margrethe's ship', they have called the wreck, and according to a local tradition it was sunk there at the command of the thrice-crowned queen of Scandinavia (1387–1412), in order to protect the cathedral city from raids by pirates.

Salvaged fragments, however, made it seem more likely that the wreck dated from Viking times. In those days the surrounding area was relatively densely populated and a branch of the fjord went as far as Lejre, one of the main Viking settlements, which lay a little to the west of the later town of Roskilde.

In any case it was a fascinating problem, so in the summer of 1957 the Danish National Museum embarked upon its first major project of underwater excavation. The work of frogmen, in three summers, has confirmed that the wreck is of Viking origin. Moreover they found, not one ship, but several. At least six vessels had been filled with stones and sunk, some on top of one another, some in a row.

Roskilde Fjord: The course of the channel and the site of the block ships are outlined on the map

Tackling the Job

When we began our work in the summer of 1957 we had only the vaguest ideas about how to tackle it. Yet we cherished a belief—which now seems incredible—that we should succeed in the two weeks which were available that summer in raising the wreck to the surface.

We soon grew wiser. Excavation under water is an entirely different matter from excavation on land. What is more, the object seemed totally unlike a ship and more like a pile of stones, 150 feet long by 30–50 feet wide, extending across the channel and covered with shells and seaweed. There was more in the job than throwing a rope round a ship and hauling it up. It

was a case of digging, and then more digging. Our qualifications were not very great, consisting as they did of a brief course in frogmanship and some random reading about underwater exploration of wrecks in the Mediterranean. We started with preconceived ideas, gained from archaeology as it is practised by landlubbers. We soon jettisoned them, as being useless for the job in hand.

The diving part of the work presented no particular problem, as the ships were no deeper than 3–10 feet. It was just a matter of ensuring that the gear was in the right working order and adhering strictly to the common-sense safety rules. Diving without a safety-line was ruled out; and there was to be no diving if we felt indisposed or had a cold. To dive when you are suffering from a cold is to risk serious ear trouble. It was a cold job working under water all day, as the water was inclined to seep through the diving-suits to our bodies.

It was therefore with a good conscience that we fussed over our health in the way men will, demanding hot meals at all times of the day and clearing the local store out of ascorbic acid tablets (the taking of which took on something of the character of a magic rite), together with all its rum and raisins.

A Fire Hose as Digger

A large pontoon, placed at our disposal by a shipyard, was moored near to the wrecks. This was the abode of our deck-hand, who watched our life-line and air-tubes with all the patience of an angler, while seeing that the gear was in order and that the fire hose was working properly.

This fire hose was our most important tool. The usual aids to archaeology—shovel, trowel, and brush—proved almost useless, as they stirred up the mud and prevented us from seeing. With the help of the fire hose we could, when the current was well-behaved, remove sand and shells from the site where we were working without complete loss of visibility. On the face of it, the violent jet from a fire hose might seem a rather drastic way of digging, and at first we were somewhat doubtful about using it after the wrecks had been exposed. But by holding the nozzle a yard or so off the object the pressure was reduced sufficiently to render it harmless. In fact, a crumbling wreck can be cleared far more gently under water with a fire hose than with even the finest of brushes.

A Hercules under Water

When the hose was on at full pressure there was an intense back-wash, so that the man working it had to fix himself to the bottom by means of a stone or a small anchor, in order to escape being flung back by the pressure. It was an extraordinary sight. At the same time, we were able to utilize the pressure as a means of propulsion when we wanted to work our way round. The procedure was to lie down at surface level, signal full pressure to the engineman, and direct the jet behind you. As a result you floated steadily and easily forward.

Tentative assembly of salvaged parts: kelson with midship frame and mast-beam from wreck II

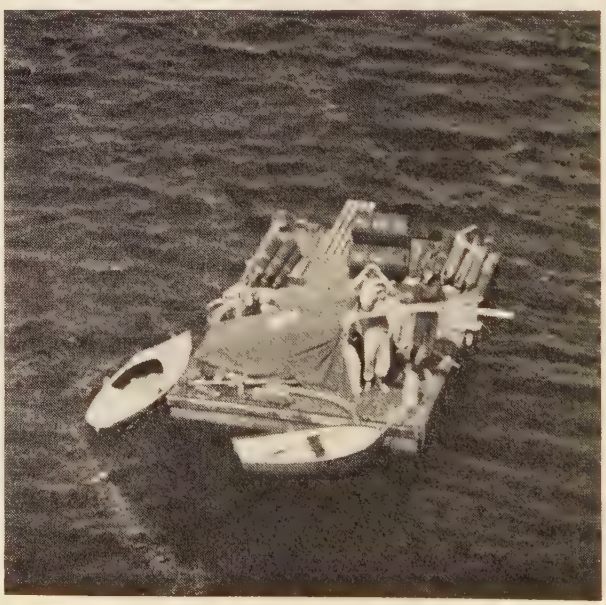
The block ships so far salvaged off Skuldelev near Roskilde: the 'blueprint' used by the archaeologists

The stone cargoes were exposed by jet a little at a time, and when was done the stones had to be removed. The biggest, weighing perhaps a hundredweight, would be hauled away with the aid of a pair of large tongs, while the smaller ones were loaded on to a platform, which was suspended under a frame held up by two oil barrels. When the platform was full, the strange craft was pulled into deep water where its load was tipped out. Everyone enjoyed the job of removing these stones. It was warming; and as objects under water not only look bigger than they are but also weigh much less than on land, we would feel like Hercules when labouring with them.

Poor Visibility

By alternately hosing the stones and removing them we worked our way slowly down into the wrecks and gradually came into contact with the ships themselves, whose oak proved to be extremely well preserved. But as the wooden rivets no longer held, we had to be constantly on the alert to ensure that small parts of the wrecks did not float away with the current with the overlying stones were removed. That was one of the reasons why we exposed only small parts at a time.

One of the biggest problems was the poor visibility. On good days we could see for five or six yards; usually, though, it was much less. With all due respect to the Roskilde fjord, it lacks the clarity of the Mediterranean. So in order to keep our bearings we stretched out at the start a steel wire marked at metre intervals along the blockage, and with this as a guide we drew a map of it with 10-inch contours. This map was our blueprint. During the work we continually referred to it, and without it we should scarcely have obtained full certainty of the form and extent of the blockage, even after three seasons of work. Such is the difficulty of underwater exploration in these parts. The work was not made any easier by floating seaweed, which altered the appearance of the bed almost daily.



The pontoon above the wrecks in the sound near Roskilde

Removing stones from the top of the block ships, only 30 inches below the surface, where the work could be carried out without diving gear

If visibility was poor to begin with, it was further restricted by the digging. Often we could hardly see one another, though we lay working side by side. The worst part of all was when we got down to the bottom planking, which was nearly always covered in a thick layer of ooze. At the slightest touch this would get churned up, making the water as black as night. We would then have to work blind, feeling our way forward and removing the ooze with our hands, and being compelled afterwards to stop work for a few minutes or longer—all according to the strength of the current—and wait for the water to clear.

In these enforced intervals we would find time to enjoy the captivating scene around us: the perfect stillness, the sunlight playing on the surface, the strange vegetation, and the friendly and inquisitive fishes. It was like a journey in another world. Above all, of course, we had the joy of archaeological discovery: the thrill and expectancy when the murky ooze slowly receded and fresh parts of the thousand-year-old ships came to light.

For Peaceful Trading

One of the vessels was a large low-board rowing boat, akin to the Ladby ship found in a burial mound in Funen in 1935. All the others were sailing-ships, resembling in many ways the Viking ships discovered at Bygdøy in Norway. But whereas the Norwegian vessels are ornate chieftains' ships, these are everyday craft built for peaceful trading. Nevertheless they are elegant ships, which in beauty of line and excellence of craftsmanship are no less splendid than the Norwegian vessels.

The merchant ships of the Viking period have hitherto been known only from rather fragmentary finds. It will now be possible to reconstruct one or more with almost complete accuracy. This in itself is a considerable advance. What is more, the large number of ships provides a unique opportunity to study the line of development in the shipbuilding art of the Viking period. The ships were sunk at the same time and so must be of approximately the same age. But although they belong to the same typological group they are by no means identical. Each of them bears the individual mark of the builder.

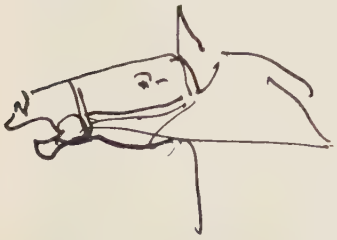
Proposed Draining

Reconstruction will entail salvage, and for proper salvage it will be necessary to have the area drained. If adequate funds can be raised, this work will be carried out in the course of the next few years.

These ships must have been sunk in order to block the inner part of the fjord to an enemy. Who that enemy was we cannot tell, and it is unlikely that we shall ever find out. But the ships themselves throw fresh light on Denmark in the days of the Vikings.

Tournament

The tramp of horses' hooves can still appeal even in the satellite age. It is not only for its pictorial qualities that the photograph of the 'Cat King' in The Danish Foreign Office Journal (No. 13, 1954, p. 13) has been one of this journal's most popular illustrations. A good horseman managing a fine horse–the thrill, grace, and vigour of that can be appreciated by everyone anywhere and its popularity seems to have no end.



The knightly tournaments of the Middle Ages with staff and lance gave way to tilting of a less violent nature. Later the knights and courtiers lost interest in it, possibly because horses became anyone's possession. Tilting was then taken up by the ordinary people. With local variations these 'civil' tournaments are still held by many local riding clubs in Denmark.

For some reason, however, this form of riding sport is most characteristic of southern Jutland. There tilting has very ancient traditions. The tournaments are still kept up in spite of the intense mechanization of agriculture; indeed it is said that many farmers, though they own tractors, keep their horses just for the annual tournaments.

The rules of the contests have undergone few changes. The rider while in full gallop must strike his lance through a small metal ring suspended between two uprights. The winner who succeeds in getting most rings is proclaimed 'tournament king'.

Exactly when the villagers incorporated tilting in their annual festivities is uncertain. Antiquarians say that they held them just before Lent (at the same time as the still surviving barrel tilting on the island of Amager near Copenhagen). According to other accounts it was a midsummer celebration.

One thing is certain: the tournaments formed one of the gay festivities which brought pleasure and entertainment into a grey workaday world, and that were looked forward to by everybody in the parish—from the oldest to the youngest. While the men in their leisure moments practised for the joust, the women and girls busied themselves preparing the refreshments. These usually consisted of apple fritters, cakes, and spirits.

From an old drawing showing a gay scene in the days of the original tournaments

Such parish festivals are still held in Als and Sundeved; and in addition a general tournament for riders of all parishes has been held every year since 1888 at Sønderborg. The popularity of this is shown by the attendance, which has varied between 165 in 1892 and 346 in 1958. At the celebration festival in 1912 it reached 448.

Many men have continued to take part after the age of 70, and in time a fair number of women have begun to enter. Some of the young women are so skilled that they are running the men very close.

The traditions are so deeply rooted in this part of the country that there has been a tendency towards the development of tilting dynasties; that is to say, families which contend among themselves

e Space Age

to carry off the most prizes. It is not unusual to find several families represented by three generations.

The tilting tournaments at Sønderborg, which take place on the second Sunday in July and the following Tuesday, open with an impressive mounted procession through the beflagged streets. It is a fine sight when all the competitors, wearing white trousers, dark jackets, and white caps, and with their raised lances decorated with streamers, line up before the contest. Many wear medals as a sign of their skill at previous tournaments or as an award for long and sustained interest in the sport.

The original idea behind these tournaments was to gather the local population together for a couple of days of innocent amusement; because of their spectacular character they have developed into an attraction of far-reaching interest.

The herald of the tournament, a trompeter who leads the historical parade before the joust, wears picturesque medieval costume

A new upholstered chair designed by Professor Arne Jacobsen. Quality inspectors check both the padding materials and the craftsmanship

A Quality Mark for Furniture

By Else Sandvad

The long-established quality mark of Danish butter and bacon, consisting of a pair of intertwined lurs, has found a counterpart in the furniture trade, in a mark which guarantees high standards of craftsmanship and good quality

The Danish furniture trade, which was more or less content to enjoy its success in the years after the war, is now engaged in an increasingly conscious effort to maintain that success and if possible widen its range.

It is clear that the effort is not being made in vain. In 1959 Denmark exported furniture worth 115 million kroner, and in 1960 it is expected that the figure will reach 140 or 150 million. The exports in 1950 totalled three million kroner.

Imitators

Pessimists who prophesied a slackening off in the international demand for Danish furniture have thus been emphatically proved wrong—so far at any rate. But it is realistic to reckon with the possibility of a buyer's resistance.

At all events the trade has decided to guard against the possible risk of any tendency to relax the high demands made on quality standards.

On the artistic level this is marked by an intensified campaign against imitators: those over-enterprising businessmen, at home and abroad, who unscrupulously exploit the success of Danish designers, not only doing a disservice to them but in the long run to Danish furniture exports as a whole. It is rarely that these outsiders have the time to inspect wares. They have to be marketed while the success is hot. Yet every complaint against an article marked 'Danish Style' or 'Royal Danish' (an example taken from an advertisement in a foreign journal) means a loss of Danish prestige.

The latest step taken by Danish furniture makers, in

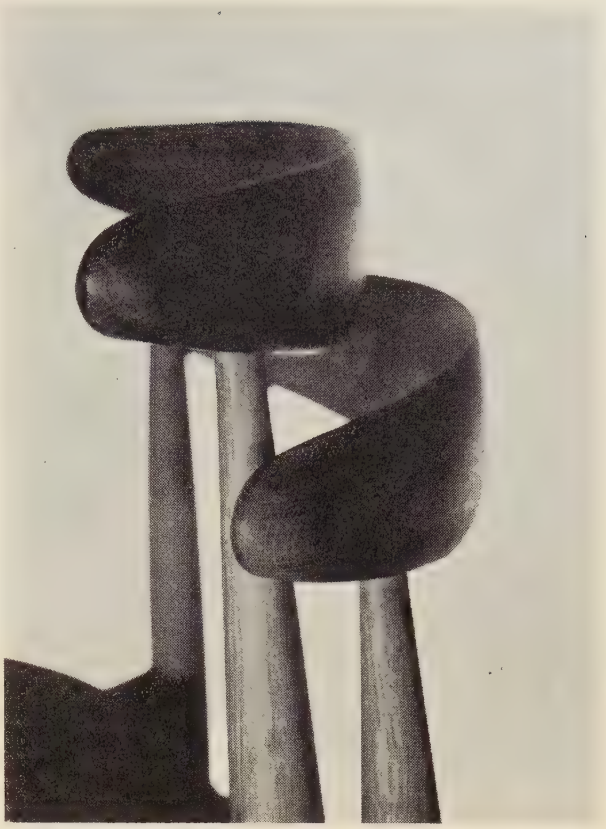
May this year, has been to employ a quality mark for their export products. To be more precise: since May the public have been seeing the results of an idea first ventilated at a meeting of furniture makers four or five years ago. The original suggestion was for a quality mark which would cover all Danish applied arts, but it proved impossible to agree on the dividing-line between artistic demands and those of craftsmanship, and the mark finally sponsored by furniture makers alone applies only to standards of craftsmanship.

The customer who now buys a piece of furniture bearing the words 'Furniture makers' DANISH control' enclosed by a black circle on a red ground has no guarantee that the furniture represents the best Danish design; the customer's own sense of design must be the deciding factor there. Nor has he an absolute guarantee that it is an original piece of work; furniture described as copies by the inspection committee cannot, it is true, be awarded the right to use the mark, but it is not the business of inspectors to expose copies. However, he does have a guarantee of a good-quality article.

Six Months' Trial

Like Danish laundries, who have also introduced a quality control, the furniture trade cooperates with the Technological Institute, which acts as a secretariat in all matters concerning quality. The furniture maker who wishes to have his products marked must make application there, and when he has done so he is placed on a six-months' trial.

During those six months inspectors pay unannounced visits when they inspect, not just individual articles of furniture, but the entire production processes, including methods of drying, storage, and so on. If there have been no complaints during the six months the right to use the quality mark is then granted, but the maker must agree to continued inspections. Should he fail to maintain the quality or there are justified complaints from customers, the right to employ the mark is lost until the quality is restored to the required standard. It must be added that loss of rights so far exists only in theory: none of the associated firms has as yet given any grounds for complaint.



Detail of two stacking chairs designed by Hans Wegner. Quality inspectors examine both the seasoning and storage of the wood and the assembly and finishing of the chair, care and thoroughness of workmanship being the basis of high quality

One of the initiators of the new inspection scheme, Fritz Hansens Eft. A/S, was 'inspected' during the Siamese state visit in September by King Bhumibol and King Frederik. The makers, Søren and Fritz Hansen, are showing the kings how Thai teak becomes Danish furniture and goes on another journey

Cost: A Thousandth Part

When the scheme started on May 1, 1960, 20 firms had undergone the six-months' trial period and acquired the right to employ the mark. The number has since doubled, and there is no doubt that makers are interested. They do not get the right for nothing: it costs them a thousandth part of their export earnings (with a minimum contribution of 500 kroner a year), plus small charges made for inspections. But these are trifles in comparison with the sums that are spent on foreign publicity.

The organizers of the scheme make no secret of the fact that the interest shown by exporters is only one aspect of what should be a mutual concern. They have no desire to make the quality mark compulsory for furniture makers; but they aim at the stage where customers will demand goods which carry it.

When that point is reached the scheme will certainly be a guarantee of high and stabilized quality.

Natural history is obviously more thrilling when personal friends of the class provide the teaching material

Schoolgirls admiring the Oriental rug sent to them by the crew of their adopted ship

A Kangaroo for a Concert

By Børge Mikkelsen
Welfare Officer, Port of Copenhagen

The adoption of ships by schools is a work of great educational value on the one hand and a piece of useful public relations on the other. Every sixth ship in the Danish merchant navy engaged in overseas trade now has a direct link with a school at home

A class of schoolchildren decided in their geography lesson to write to the crew of a ship sailing to places they were learning about. The crew's reply led to a further exchange of letters which set an example to other schools. That was in England in 1934 and the result was the formation of the British Ship Adoption Society to organize the 'adoption' of ships by schools.

The idea was a great success. By 1948, when it had caught on in Denmark, over 1,200 British ships had been adopted by 800 schools with about 400,000 children. The Danish Ship Adoption Society has a shipowner as its chairman and the committee consists of heads of schools, teachers, and members of seafarers' organizations. When a school wishes to adopt a ship it writes to the society, which selects an appropriate ship from its list and informs it of its adopters, and the contact is thus made.

A class may write collective letters or may appoint a 'corresponding committee'. Alternatively, pupils may correspond individually with members of the crew. But all correspondence must pass through the school, in order that all pupils may profit from it.

As a result of this contact between land and sea, lessons in geography, botany, zoology, and history, to name only a few of the main subjects, become much more interesting and profitable. Most schools keep a wall chart on which they record the daily movements of their adopted ships, and they also have blueprints of the vessels and so are able to become familiar with their layout. Many schools, probably the great majority, receive from the owner or a handyman on board a gift of a model of their adopted 'child'.

Besides letters the children receive collections of butterflies, stuffed birds and animals, specimens of native work, pressed flowers, snakes and other reptiles preserved in alcohol, animal skins, and so on.

A school whose adopted ship has made several voyages to the Antarctic received a stuffed penguin, another school a live kangaroo (which had to be lodged in the local zoo), a third a beautifully mounted collection of knots, reefs and splices, made in rope and wire by the deck-hands.

Many members of the crews share the same hobbies as the children, such as collecting stamps, matchboxes, bus tickets, coins or notes, in which case there are excellent opportunities for exchanging.

Presents from ships are kept in school cupboards and showcases; postcards and photographs in scrapbooks. The collections are of course in the charge of elected 'keepers' and 'archivists', the teachers' work being confined to providing advice and guidance.

In return, the schools report day-to-day events, as well as special celebrations and parties, examinations, outings, and school plays; while the crews of course take a

keen interest in the progress of their schools' sports teams. Weekly journals made up of newspaper cuttings are always welcome mail on board.

Letters from a ship are usually the responsibility of the radio operator or another young officer, but not infrequently of the captain. Ship clubs, which are now fairly common, can besides organizing shore excursions for the crews, entertainments on long voyages, and sports contests, also arrange correspondence with their schools.

Letters from ships to schools can deal with anything, from descriptions of the accommodation, the cargoes and the routes, to thrilling accounts of hurricanes in the Atlantic or typhoons in the Indian Ocean, voyages up African rivers, and dramatic adventures ashore. And just as a letter to a school, bearing foreign stamps and postmarks, can be an exciting inspiration from the great world abroad, in the same way a letter from the school to the ship comes as a welcome greeting to the seafarer from home.

When an adopted ship calls at a Danish port a school visit is arranged and the children are shown round it. Educational visits of this kind can provide material for many pieces of composition.

It is also a common practice for seamen to visit the adoptive schools when on leave and talk to them about their voyages, often showing films or transparencies. These mutual visits are unquestionably of great importance and are often imaginatively planned. For example, a crew had invited their adoptive school to visit them in Copenhagen. When the ship arrived in the Free Port the school orchestra played music on the quay as it moored.

So well has the idea caught on in Denmark that about 200 ships—nearly one-sixth of all long-distance vessels in the merchant fleet—have been adopted, by an equal number of schools: 62 in Greater Copenhagen, 126 in the provinces, and four in Slesvig (with its Danish minority), south of the border. About 1,500 items of mail pass through the offices of the Ship Adoption Society every year; this is in addition to the many which are forwarded direct.

There is now a waiting list of over 50 schools, and it will be years before their wish to adopt ships can be complied with. They are, however, regarded in every other respect as active members of the society, receiving its journal as well as offers of talks and lectures.

The idea underlying the promotion of ship adoption in Denmark has wider perspectives than that of pleasure with education. Since the war the Danish merchant fleet has expanded rapidly, and the problem of obtaining crews to man the ships, and of persuading young people to train as navigators, engineers, cooks, and stewards, is becoming urgent.

In the old days it was no problem: young seamen were recruited in fishing villages and in ports large and small. But now there are no longer enough young men coming forward. And so a campaign has been launched to inform them, by means of talks and films, that the merchant navy needs them and offers them a career.

It is believed that the best way of sustaining and strengthening the traditional interest of the Danish people in the sea is to make contact with young persons, impress on them the importance of seafaring to the nation, and tell them of the opportunities and conditions which it provides.

Wearing pixy clothes with red bonnets, the school orchestra (from Frederikssund) welcomes the school's adopted ship in Copenhagen Freeport

Quality control of sliced bacon at the Meat Research Institute in Roskilde

Prepared for Prepacked

By Arne Christiansen
Danish Agricultural Council

Sales of prepacked bacon form as yet only a small fraction of the total exports of Danish bacon, Denmark's biggest export line. But Danish farmers and bacon factories are prepared to meet an observed change in consumer habits, thanks to market survey, research, and production

Danish farmers, with over nine million pigs a year the biggest producers of bacon in the world, account today for close on 50 per cent of the consumption of the world's biggest bacon market, the British, whose weekly consumption runs at about 11,000 tons. This market takes about 56 per cent of the production of Danish pig meat. It follows that Danish farmers are keenly interested in any new trend on this market, whether due to political measures by other suppliers or changing habits of consumers—the British housewives.

While there are strict limits to the influence that can be exerted by commercial means on the factors which govern the volume of production by competitors, it is possible to pinpoint consumer habits and keep constantly abreast of the trends revealed. It is the producer's task at all stages—from the farm to the table—to ensure that the product is adjusted to the wishes of the consumer and that its ability to compete with other consumer goods in a buyer's market is consolidated.

In the marketing of bacon—Denmark's principal export line—such pinpointing has of course been carried out for a long time. Bacon consumption and purchases in Britain have been surveyed by the Danish Agricultural Producers' Information Service in London and the Danish Bacon Factories' Research Institute. Answers to questions such as:

(1) How many people buy bacon, and how often?
(2) Where do they buy it?
(3) How do they buy it?

have been translated into figures and graphs for the guidance of farmers and bacon factories when planning future production.

One detail in the pattern that has emerged is of particular interest. This is the customer's growing preference for sliced and prepacked bacon.

It is true that this form of production and marketing accounts as yet for barely 10 per cent of the total consumption of bacon in Britain. But a well-known Englishman, writing recently in *The Grocer*, predicted that by about 1970 all bacon would be prepacked.

In the autumn of 1958 about 5 per cent of the consumers bought their bacon prepacked. In 1959 a good 6 per cent did so; and in January 1960, 8–9 per cent.

It is natural to ask the reason for this trend.

Same Quality, More Convenient

The complete answer is a complex one. But the housewives chief incentives seem to be that prepacked bacon is convenient to buy and convenient to cook in small modern kitchens, while to the trade it is essential, if bacon is to be sold in self-service shops, which now account for 20 per cent of the sales. At the end of the war, 15 years ago, self-service shops were unknown. Now new ones open every day, and that is likely to be the increasing tendency in the future.

It need hardly be said that Danish bacon factories have taken account of this trend from the start: not in order to anticipate developments with abrupt changes in production, but to be prepared for a place in the market that is developing for the product known as sliced, prepacked bacon.

Looked at from a Danish point of view, however, it is more than a matter of a change-over to a new form of production and marketing. It is equally a matter, under these future marketing conditions, of upholding the main criterion of Danish bacon, which is quality.

The fact is that new demands are made when bacon is to be sliced and vacuum-packed—demands with regard to flavour, appearance, and keeping quality. But thanks to the start of extensive research work as soon as the possibility of marketing prepacked bacon was observed, the Danish Bacon Factories' Research Institute can provide the answers to the questions that arise in the production stage regarding quality production of prepacked

bacon. These answers involve directions as to productive methods and technical installations.

Although the sales of this new product constitute as yet only a small fraction of the total output of Danish bacon factories, it can be stated that they are prepared for prepacked bacon.

It may also be said that an interesting general trend has been observed in the marketing field. Whereas in Denmark and elsewhere there is a tendency to equate bacon with British eating habits, because this form of pig meat has never been really successful outside Britain and British circles, there is now a discernible trend towards the international appreciation of sliced and prepacked bacon. The attractive hygienic packs, their contents untouched by human hands, are tempting when displayed in self-service stores. They can be used in a variety of ways, ranging from the British way of serving bacon to sandwich slices, dinner and luncheon dishes, made-up dishes, and mixed grills.

Seasoned travellers have become faithful customers at the Danish farmers' food shop in Copenhagen Airport, where prepacked bacon is a popular buy. The question is often asked: 'Why can't we get this at home?'

Consumers' Opinions

The Marketing Organization of the Danish Export Bacon Factories has introduced prepacked bacon at important food fairs in Berlin, Hamburg, and Munich, and there has been a run on the sales lines by housewives. In connection with the *Grüne Woche* in Berlin, in 1960, a questionnaire was addressed to a number of West Berlin housewives; and, while they cannot be taken as wholly representative, their replies are of some interest.

Here are a few quotations:

'The bacon I bought at the fair had such a fine flavour that I greatly regret it is not obtainable here in Berlin. If it does become obtainable in the near future it will occupy a *permanent* place in my menu'.

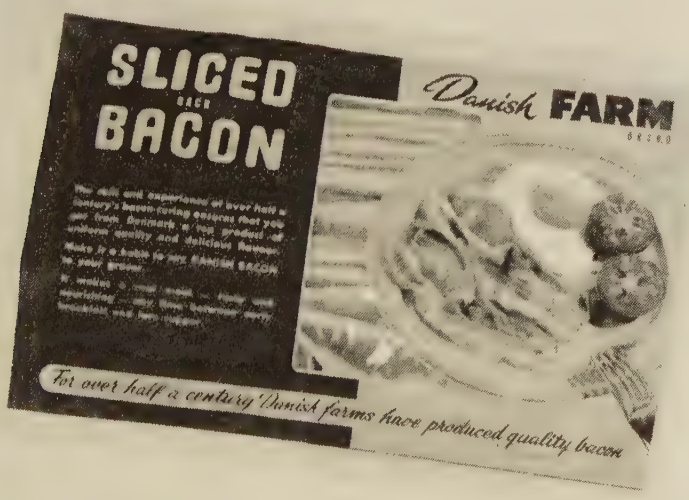
'I think it tastes better than the heavily salted and smoked product we usually get here. For boiling and frying I use fat bacon, but not much. I would often buy bacon of the quality obtained at the food fair—at that price.'

At the Bologna fair, later in the year, a similar questionnaire produced equally positive replies.

'Bacon also tastes good when served as an *entrée* on toast with mayonnaise.'

'We like it very much. We eat it fried in olive oil, with potatoes and Parmesan cheese.'

The appreciation of consumers in these Continental markets is one thing, however, and commercial policies another. Still, Danish farmers are prepared for a future for prepacked bacon.



The inviting retail packaging of Danish sliced bacon

Three Brothers and a Calculator

By Kristen Hesselager

Danish office machinery is well known. A Danish family business, which grew rapidly from basement to factory, has now designed a new, cheap, and convenient calculating machine; patented in 40 countries, it has achieved great sales in the course of three years

It is not unusual for older industrialists who have built up a business with their own hands to declare that that form of success belonged to the past and could hardly be repeated under modern conditions. It is a view that is contradicted by the facts. All over Denmark there are businesses which started most unpretentiously 25, 15, 10, or only five years ago and yet are now exporting to all parts of the world.

One began in an attic, another started in a shed, and a third had the kitchen for his laboratory, so that dinner had to wait till an experiment was completed. The three Carlsen brothers rented a basement in 1946 to build calculators. An engineer on the Copenhagen Tramways made tools for them at home in his spare time. The Carlsens and the engineer have long since built their respective modern factories in Copenhagen, and the brothers have devised a new type of calculator which in three years has sold 120,000, 95 per cent of them for export.

Start of the Company

The company of brothers came about in the following way. Brother I was an engineer in a private firm and had a mind to set up on his own; brother II was a newly fledged engineer ready to enter the firm; brother III was an office man, but having an interest in and a flair for mechanical things had ideas of improving the calculating machine he knew. He took to the drawingboard, but realized that it was a bigger job than he had imagined. As this fitted in with the plans of his engineer brothers, he resigned from his firm and entered into partnership with the others for the production of a new calculator.

It took a year or two to create a satisfactory design, and then with a handmade prototype they approached a commercial firm in Copenhagen, which bought the sole distribution rights. With that payment and their own modest resources they started up in the basement. They took on a few helpers, but for the first few years personally functioned as everything from directors to messengers.

On Sundays they were able to use the machines at the eldest brother's former place of work, and the ex-tramwayman was given the contract for the supply of a number of components.

It is with calculators as with every other mechanical thing. Their object is to relieve men of work. The demand today is for more automatic aids, and there is a widespread need of a cheap calculator which is so easy to operate that it entails no sort of training, and which at the same time can cope with all the calculating jobs that can reasonably be required of it in daily business work.

Ten Keys: Four Calculations

With these ideas in mind the brothers began, a few years ago, to construct a new type, and succeeded in making a great advance with a machine that can perform all four types of calculation and yet can be operated by means of 10 keys. The firm's previous design had 40 keys. Ten-key machines have existed for some time, but have usually been either for addition or for multiplication and division. The new machine combines with 10 keys addition and subtraction, multiplication and division.

A skilled operator can add up to 80 three- and four-digit figures a minute, and the result is obtained immediately. In multiplication and division it is possible to work at a speed of 350 operations a minute.

One further requirement has had to be met. It is today almost essential that the mechanical operation of a machine should be performed with a minimum consumption of power, if one person is to tolerate working with it for some time. So in this design the parts have been reduced in dimension. This entails great precision in construction, and all components must be made with a painstaking accuracy reaching to the extreme of technical ability. Production has been rationalized and every effort made to design components as simple as possible. The number of screws has been limited. Milling and moulding and similar operations have been cut to a minimum and replaced by casting, which with modern material can be carried out with great accuracy. In punched parts of the new design there is often a tolerance of 1/200 of a millimetre, and in the case of parts calibrated in the machine the tolerances are often still finer.

As a result, all parts move faster and more easily. The whole machine weighs six pounds (2.7 kilos) and can be carried in a briefcase; yet while conveniently portable it does the work of a large office machine.

Other Characters Fitted

The design has been patented in 40 countries, and in each of the three years since it came on the market 40,000 machines have been sold, in most parts of the world. Some are made with Arabic characters, and every month about 1,000 are despatched to Japan, where the calculating-frame, though still honoured, has difficulty in competing because it requires years of experience and great skill.

Will the calculating machine continue to find a market in competition with the electronic computer? That is a problem the Carlsen brothers often discuss. They believe that the need for statistical work will increase, and not only in large firms with involved machinery. They think that no matter how carefully big analyzers are adjusted to requirements there will always be a demand for direct calculating machines.

The Danish calculating machine is considered simple – though all things are relative!

Insulating materials are indispensable these days for the light wooden frames of outer walls: a vapour-proof layer is placed on the inside and a wind-proof layer on the outside

Exporting Insulation

By K. Henning Pedersen

Danish technology was in at the start of building insulation and is still foremost in industrial and marine insulation against loss of heat, moisture, and coldness. Sound insulation in factories is another important line. Some material is 98 per cent air

By means of materials composed of 98 per cent air and 2 per cent solids it is now possible to make life pleasanter for well-nigh everybody. It is possible to insulate apartments in modern concrete blocks against extraneous noise and to provide comfortable warmth in small homes without excessive fuel bills. No less important from the point of view of the community, it is possible to insulate machinery and production units in factories against corrosion. It is also possible to insulate heating pipes so as to avoid loss of heat, and to insulate factory walls and machinery so as to cause less disturbance to the workers and enable them to concentrate on their work and increase output.

In all this, Danish technology has an important part. The use of insulating materials for blast furnaces, cement factories, and other industrial plant has been known for decades. And all over the world such plant can be seen insulated with materials obtained from the Danish soil and originating fifty million years ago. The rapid expansion of the chemical industry has intensified the campaign against corrosion, which can save industry and the community enormous sums. Factories working under Danish licence to this end are found in every part of the world.

Danish technology has also registered successes in the insulating of buildings. One of the reasons is the nature of the Danish climate. Together with the shortage of domestic raw materials and fuels, which figure largely on the imports side of the Danish trading account, it has stimulated technicians to intensive efforts aimed at reducing heating costs, and improving the balance of payments, by means of insulation. Efficient home insulation pays for itself in reduced fuel expenditure in about three years.

Unique in the World

Building insulations has been known since the beginning of the century, when building engineers first began studying the problem. The procedure starts with a Danish natural product (which as a geologocal phenomenon is almost unique in the world) and then goes on to a world licencing system for the processing of this special type of clay, which acquires insulating qualities that are also unique by firing and vitrification. Other modern insulting materials are produced as a result of discoveries made when working with high-molecular materials—plastics, in short.

In a peaceful bay where the peninsula of Jutland now lies there lived, fifty million years ago, an immense number of microscopic diatoms. When they died, their imperishable siliceous shells fell to the bottom. In doing so they encountered suspended and plastic clay, carried to the bay by a river. The clay settled with these shells and formed *moler*, the insulating material. This is fired, pulverized, and mixed into a plastic substance, which is then cut into the required sizes and refired. This process removes the water from the diatomic cavities. What remains is the poorest heat conductor known: air enclosed in a stone with a specific gravity of 0.8, which can thus float on water. This material has been used for decades in steel mills in Britain, Germany, India, and elsewhere.

Cellular Concrete and Rock Wool

The next phase is cellular concrete. The first expanded clay aggregates were produced in 1920 by gas generation in plastic clay. The method has since been elaborated and a Danish firm holds world patent rights in a special method of production and special processing in the rotary kiln. There are licensed factories in Britain, France, and Austria—among other countries. There is also a production of similar materials, such as 'foam' concrete for insulating roofs, outer walls, and central-heating pipes, as well as cellular concrete produced by gas generation in cement

mortar: probably the oldest known method, the product being also called light-weight concrete.

Foreign licences have also been transferred to Denmark—with the result that the Danish licensee has acquired affiliated companies in other countries. In this case the material used is 'rock wool'—a product of granite, flint, and lime mixed in a kiln based on the principle of the blast furnace. The 'lava' which results is spun into threads 1/5,000 millimetre thick, and forms 2 per cent of one of the insulating materials, the other 98 per cent being ordinary air.

Materials such as these have been used for ship's insulation, pipe insulation in Persia, cold stores in Ghana, insulating harbour buildings in Persia, and so on. One industry in this sector has developed with almost explosive rapidity. This is the one that in recent years has produced another insulating material consisting of 98 per cent air and 2 per cent solids—plastic insulating material. This is made into slabs (which like the above are also fire-insulating), into balls and pellets, and into strips. This modern material can also be used as 'wall-paper' on walls, floors, and ceilings. Danish products of this kind are marketed by associated companies under Danish licence, with factories built by Danish engineers and with Danish-made machines.

Meanwhile, work is steadily going on to improve and renew conventional insulating materials such as processed asphalt (often employed for easier work and walking in factory, office, and shop floors), industrial cork, bakelite, asbestos, and so forth, in order to adapt these materials to modern requirements and the latest developments. Certain anti-damp products patented in Denmark are exported to various countries in every continent, finding application in dry-dock installations and oil tanks, and in the waterproofing of flat roofs.

Insulators for refrigerator pipes and cold- and hot-water pipes (on the passenger ship m.s. Prinsesse Margrethe)

In housing, the final stage of perfection has been almost reached. The remaining problem is to convince people of its advantages. The many Danes who have tried it have seen the benefit to their pockets. Industrially, insulation is now employed for hot-water pipes and—an ever increasing field in the light of the growing consumption of deep-frozen foods—for refrigerators and cold-storage plants. In the industrial field also there is the campaign against rust and corrosion, by means of anti-rust insulation in factories where the air contains corrosive dusts and vapours, the painting of non-treated cement surfaces, the use of electric insulating enamels, and so on. Insulating, once only a building technique, has grown into a vital industrial measure. Danish technologists saw the importance of being early in the field. As a result, a small country poor in natural resources is selling now, on a large scale, not so much the materials, but the technical 'know-how' of insulation. It is precisely the development which economists and technical experts have for long been urging.

Moler, a first-class natural material: the slabs bear impressions of prehistoric Danish fauna

DANISH FOREIGN OFFICE JOURNAL

Published by the Ministry of Foreign Affairs. Distributed through Denmark's Diplomatic and Consular representatives to interested firms, trade associations, authorities, the Press, etc.

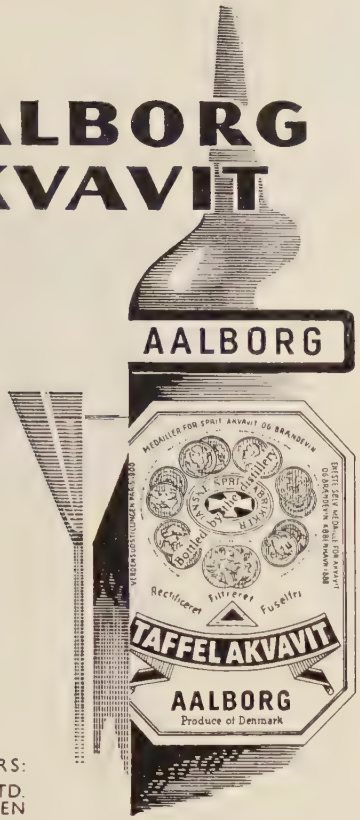
RESPONSIBLE EDITOR:
CHIEF OF THE PRESS DEPARTMENT OF THE MINISTRY OF FOREIGN AFFAIRS
Christiansborg, Copenhagen K

ADVERTISEMENTS:
DANSK BLADFORLAG,
Amaliegade 22, Copenhagen K.

PRINTERS:
J. H. SCHULTZ A/S,
UNIVERSITETS-BOGTRYKKERI,
COPENHAGEN

SUBSCRIPTIONS:
J. H. SCHULTZ BOGHANDEL
Havnegade 15, Copenhagen K.

AALBORG AKVAVIT



SOLE EXPORTERS:
DANISCO LTD.
COPENHAGEN

COHR *Silver*

CARL M. COHR - FREDERICIA - DENMARK

DANISH DANISH DANISH DANISH DANISH DANISH DANISH DAN

bacon

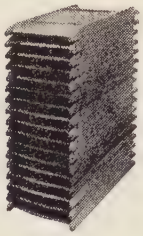
- a magic word where
food is the topic of conversation.
So many fine
meals can be conjured up
with *Danish bacon,*
from the finest delicacy
to the everyday -
'bacon and egg' -
enjoyed throughout
the world but
even more appetising
with *Danish bacon.*

bacon makes a meal

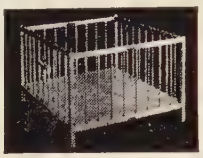
If you look at even the thinnest rasher of **Danish bacon** *you will notice two marks an inch apart. These are part of the two lines that enclose the word DANISH down the whole of each side. Look for the marks when you buy* **Danish bacon,** *you can be sure it is bacon fit for a king.*

The Danish Bacon Factories' Export Association, Axelborg, Copenhagen V.

Model 33



Model 34



Spring Clothes-pegs of Wood and Plastics
"Handy" Wooden Folding-Chairs
Deck-chairs Play-pens Picnic Sets

C. C. HANSEN LTD.

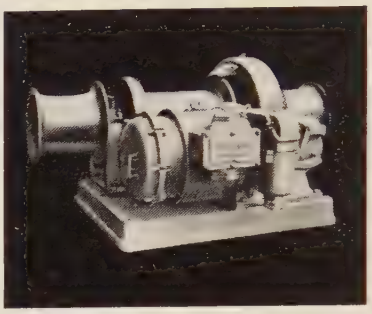
ROSKILDE - DENMARK

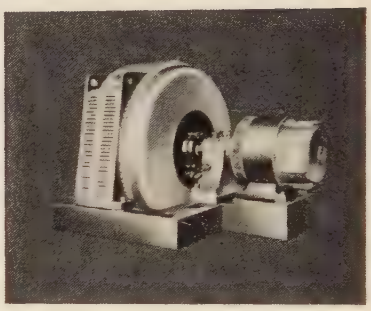
Cables: Hansens

THRIGE

ELECTRICAL EQUIPMENT

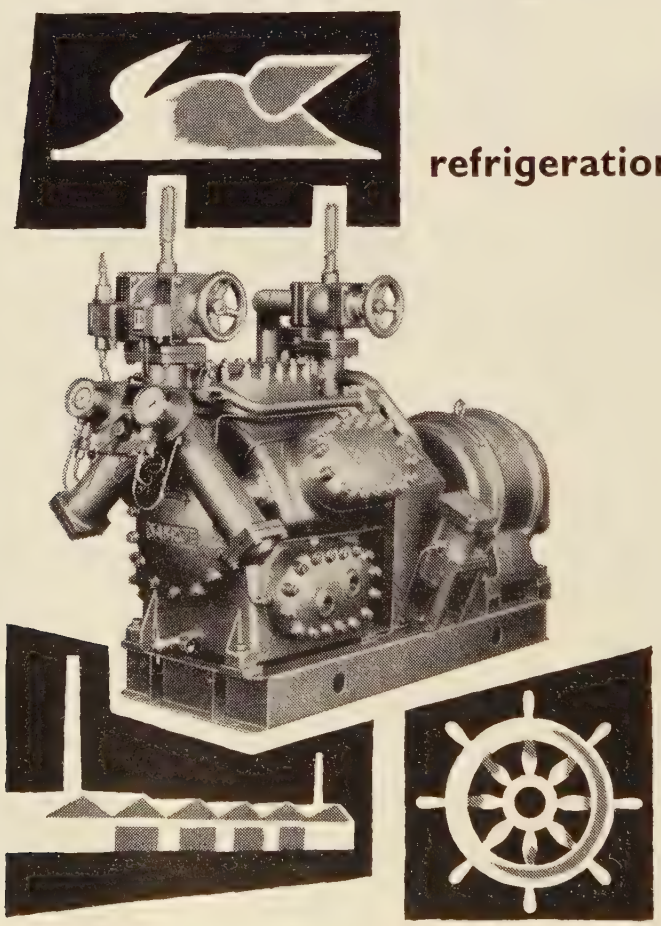
FOR MARINE AND INDUSTRIAL USE





THOMAS B. THRIGE
ODENSE
DENMARK

TELEGRAMS:
THRIGE ODENSE



SABROE

refrigeration knows no boundaries . . .

Wherever in the world you see the name SABROE, it signifies the safe solution of a refrigeration problem. It also means speedy contact with skilful engineers and technicians who are ready to solve YOUR refrigeration problems, too. For more than 60 years, SABROE have been amassing an invaluable fund of experience, which is at your disposal without any obligation. You only need to say

SABROE

- a name world-famous for refrigeration

Head Office and Works: Aarhus - Tel. (061) 3 63 66
Branches in Flensburg, Göteborg, Stockholm and Osaka. Dealers in 65 countries.

The Port of
COPENHAGEN

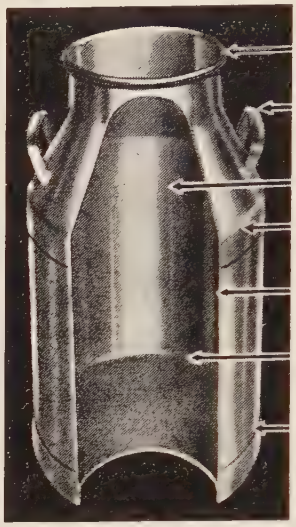
Transit Centre for Northern and Central Europe

FREE PORT

THE DANISH

Alminette

SEAMLESS MILK CHURN OF HARDENED ALUMINIUM



Solid rounded bead.

Hardened non-protruding handles.

Mirror finish inside.

Re-inforced shoulder.

Heavy gauge body.

Streamlined throughout.

Solid base of galvanized steel or hardened aluminium.

FREDERIKSBERG METALVAREFABRIK Ltd.

10 NITIVEJ - COPENHAGEN F

Phone: Central 2326 - Cables: Seamless

MYHRWOLD & RASMUSSEN

74, KOBBELVÆNGET, COPENHAGEN BRH.
DENMARK

★

We are pump manufacturers
We are pump experts

The ROTAN pump

Suitable for:

Oil
Fat
Tar
Petrol
Lard
Beer
Brine
Molasses etc.

Tell us your problems,
and we will solve them
and give a keen quotation.

·DFM·

DE FORENEDE MASKINFABRIKKER

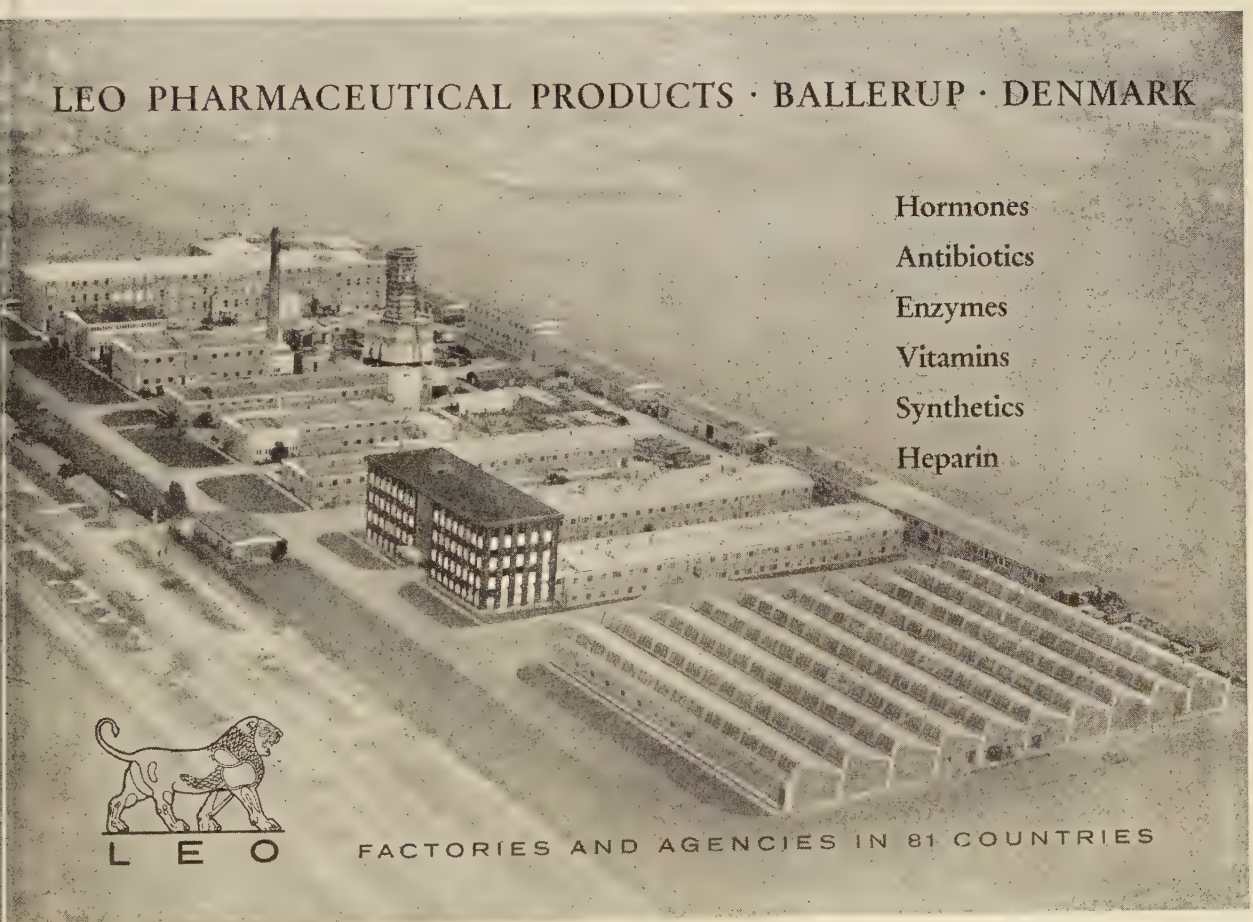
NAKSKOV

DENMARK

MODERN

Steam WINCHES
WARPING WINCHES
WINDLASSES
CAPSTANS
TRAWLER WINCHES
STEERING GEAR
CARGO-PUMPS

Electrically DRIVEN
PISTON PUMPS



VIKING

DANISH STAR EXPORT BEER

★

BRYGGERIET STJERNEN
COPENHAGEN

Awarded the Prix d'honneur, Belgium, 1958

Oldest Danish Producers of Blue Cheese

BOEL FOODS

20, NYHAVN, "HANS ANDERSEN'S HOUSE",
COPENHAGEN K

TELEGRAMS: BOELBROS . TELEX 2965

Producers and exporters of all kinds of Danish cheese

cool, golden...

A Royal Choice

All over the world, people of judgment ask for Tuborg—that wonderful, wonderful beer from wonderful, wonderful Copenhagen. So, wherever you are, enjoy cool, golden Tuborg. Skål!

TUBORG

THE WORLD FAMOUS BEER

By appointment to
THE ROYAL DANISH COURT THE ROYAL SWEDISH COURT THE ROYAL GREEK COURT
Tuborg Breweries Ltd., Copenhagen

BY APPOINTMENT TO
THE ROYAL DANISH COURT

Hafnia

the world-renowned Danish ham!

HAFNIA KONSERVES A/S . COPENHAGEN

Manufacturers of all kinds of canned meat

The Tiger from Denmark

gives your wireless full strength . . .

If you're hunting for a really reliable battery for your battery set, then ask for Hellesens. It's a battery with an exceptionally long life and always has the same high quality. It was Hellesens who invented the dry cell 72 years ago, and today no less than 70 % of the production is exported to 103 countries.

Insist on the wireless battery with the tiger on it!

HELLESENS LTD.

6, ALDERSROGADE, COPENHAGEN Ø, DENMARK

NAKSKOV SKIBSVÆRFT

(NAKSKOV SHIPYARD LTD.)

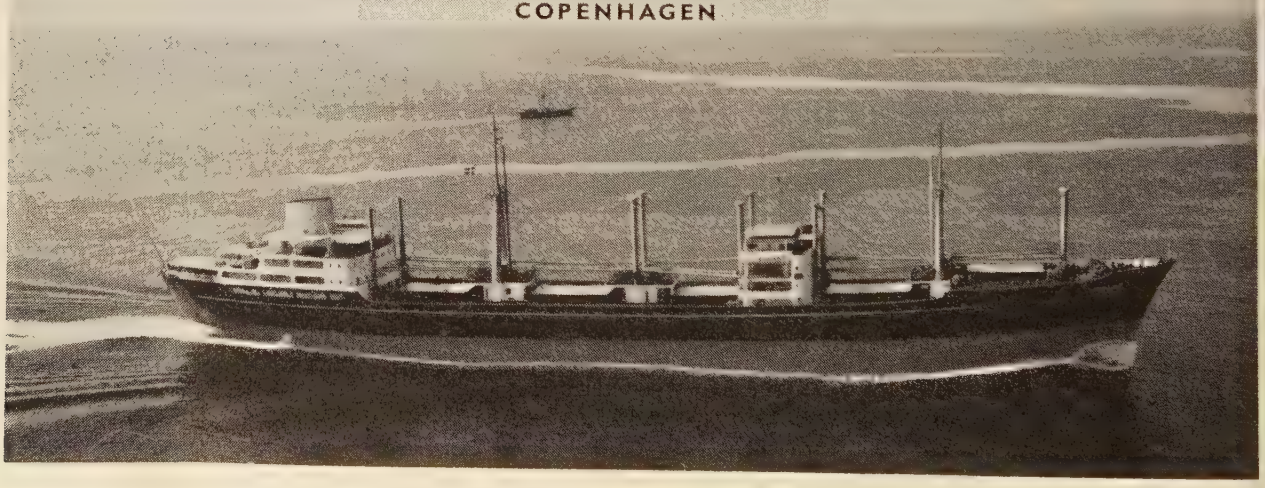
NAKSKOV · DENMARK

SHIPBUILDERS · SHIPREPAIRERS

M/S AYUTHIA

12.550 TONS DW

built for THE EAST ASIATIC COMPANY, LTD.,
COPENHAGEN



SPECIAL EXPORT ADVERTISEMENTS

AGRICULTURAL PRODUCE

DANSK FLØDE EXPORT
Established 1912 *16, Grønløkkevej, Odense*
Exporters of evaporated milk and tinned cream

THE DANISH BACON-FACTORIES' EXPORT ASSOCIATION
AXELBORG — COPENHAGEN V
Exporters of bacon, canned meat etc.

SALLING CHEESE LTD.
Skive . Denmark
Telegrams: OSTEHANSEN
TELEX 9111
Export of all sorts of cheese
Manufacture of processed cheese

RASMUS HANSEN LTD.
9, Syndergaardsgade, Copenhagen V.
Telegrams: RASHA, Copenhagen
Exporters and Manufacturers of Fancy Cheese Butter & Milk-powder
Specialities:
Danish Blue Cheese, Esrom,
Danish Camembert, Samsoe, Fynbo.
Maribo, Danish Emmenthaler
Service and Quality

P. M. PLUM EXPORT CO. LTD.
51, H. C. Andersens Boulevard, Copenhagen V
Danish Tinned Hams and Provisions
Choicest Danish Butter in tins, casks and packets

MAYPOLE, Copenhagen V.
Telegrams: MAYPOLE - Telex: 2395
BUTTER - CHEESE - MILK - CANNED MEAT

SEED AND GRAIN

Dansk Saasæd- & Kornexport A/S
Nykøbing F.
Telegrams: SEEDGRAIN
Telex No. 2728
Telephone 85.27.22
Distributors of:
Original Abed Pedigree Seed Grain
Original Weibull Pedigree Seed Grain
Original Pajbjerg Pedigree Seed Grain
Exporters of Seed Grain and Malting Barley

FR. DREYER A/S
Wholesale Seed Merchant and Seed Grower
Aarhus . Denmark

A. NIELSEN & Co. A/S
Nykøbing F.
Telegrams: NESLEINA
Telex No. 2728
Telephone 85.27.22
Seed grain — Malting barley — Grain

NIELSEN & SMITH LTD. Dansk Saasæd Kompagni
14, Nyropsgade Copenhagen
Telegrams: JUBYCORN
Telephone: Minerva 3858
Telex: 2397.
Sole agents in Denmark for the Svalöf Plant-Breeding Station.
Exporters of Seed Grain and Malting Barley

A/S C. A. QVADE & CO.,
Maribo
Telegrams: QVADE
Telex: 5969
Telephone: Maribo 121
Exporters of Malting Barley and Seed Grain
Sole agents for:
ORIGINAL CARLSBERG II BARLEY

FRUIT & VEGETABLES

Gartnernes Salgsforening *Odense*
Telegrams: GASA, ODENSE
Telephone: Odense 12 60 00
Telex: 9833
Horticultural Producers' Marketing Assn.
Exporters of Vegetables, Fruits and Flowers

KØBENHAVNS FRUGTAUKTIONER
VEGETABLES . POTATOES . FRUIT
7, RØMERSGADE . COPENHAGEN
Telegrams: SUBASTA . Phone: Central 12420
Telex: 5794

PREPARED FOODSTUFFS etc.

AALBORG AKVAVIT
CLOC LIQUEURS
CLOC GIN CLOC WHISKY CLOC VODKA
Sole exporters:
AKTIESELSKABET DANISCO
Copenhagen

JENSEN & MØLLER LTD.
39, Ved Amagerbanen, Copenhagen S.
BISCUITS AND WAFERS
Cable Add.: BICHOKO

MINERAL PRODUCTS

DANISH WHITING DENMARK
AALBORG KRIDTSLEMMERI
M. KRAGELUNDS FABRIKKER.
Finest Danish Whiting
Cable: KRAGELUND. Aalborg

DANSK FLINT-EXPORT
Copenhagen - Telegrams: FLINTEXPORT
Flint pebbles, boulder flint, crushed flint,
Flint
ground feldspar & quartz lining blocks for tube mills

MORSØ KRIDTVÆRK
Erslev-Mors. Tlgrs. KRIMO, Nykøbing M.
Exporters of whiting.

THE OYTA-COMPANY Ltd.
Holbæk . Tlgrs.: HOTACO
Crushed Oyster Shell for poultry food

MACHINERY METAL GOODS

DANISH WELDER COMPANY
HANS L. LARSEN & SON
COPENHAGEN N . DENMARK
Manufacturers of:
Gasoline and Diesel driven DC arc welders - Transformer type arc welders - Electric motor driven DC arc welders - Spot welders - Seam and Butt flash welders - Accessories for electric welding.

DANSK TRYKLUFT KOMPAGNI A/S,
31, Nürnberggade, Copenhagen S.
Cables: Datryko
DTK Cement Injectors - DTK Sandblast Plants and Compressors.
DTK Pneumatic Cement guns.

BRØDR.GRAM A/S . VOJENS
Refrigerating plants for every purpose
Complete ice-cream plants in all sizes
Telegrams: REFRIGRAM. Telephone: Vojens 41421

H. Hollesens Fabrikker
Copenhagen SV . Denmark
"GOLF" RADIATORS AND PUMPS

DRY-CLEANING PLANTS. LAUNDRY MACHINERY
Georg E. Mathiasen Ltd.
COPENHAGEN

SPECIAL EXPORT ADVERTISEMENTS

LAUNDRY & DRY-CLEANING MACHINERY, GARMENT PRESSES

NORVA
MASKINFABRIK A-S

Copenhagen NV. - Telegr.: NORVAFABRIK

PEDERSHAAB MASKINFABRIK Ltd.
BRØNDERSLEV . DENMARK

Road-making machines, paving-machines, all classes of road-rollers

---

STEEL BOILERS
OIL BURNERS
MECHANICAL STOKERS

RECK'S OPVARMNINGS COMP. A/S
Cables: ARECK Copenhagen N

OIL PUMPS & MACHINE EQUIPMENT
OLIEPUMPER & MASKINUDSTYR

Nordic Petroleum and Commercial Company Ltd.
6, Vester Farimagsgade - Copenhagen V.
Tel.: Byen 4309 Cable: Exolein

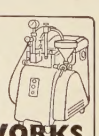
DAIRY MACHINERY
AND BREWERY MACHINERY

Dairy Machinery
De danske Mejeriers Maskinfabrik A.m.b.A.
KOLDING DENMARK
Established 1888 Telegrams: Mejerifabrik

Jensen & Andersen *Dairy Engineers*
23, SYDMARKEN, SØBORG, COPENHAGEN
Complete plants for condensing, sterilizing and homogenizing . Churn-washing Machines
Machines for filling, seaming & washing tins

RANNIE DAIRY-MACHINES

Homogenisers
THE WORLD-FAMOUS
HOMO-MIC
Milk Bottle Plants
RANNIE MACHINE WORKS
TYCHO BRAHES ALLE 35 COPENHAGEN S



DAIRY MACHINERY

SILKEBORG dairy machines have more than 100 years' experience behind them, and are preferred by experts all over the world.

SILKEBORG MASKINFABRIK A/S
Silkeborg 8 — Denmark

TECHNICO-CHEMICAL
INDUSTRY

I/S ALGADAN, *Frederikshavn*
Manufacturers of AGAR-AGAR, in strips and powdered
Telegrams: Algadan

THE VEJLE ALBUMEN FACTORY LTD.
Vejle - Denmark
Manufacturers of Blood Albumen and Soluble Dried Blood of superior quality

---

Chr. Hansens Laboratorium Ltd.
3, Sct. Annæplads . Copenhagen K
Manufacturers of all Dairy Preparations. Awarded 175 First Prizes at International Exhibitions.
Famed for Strength, Uniformity, and Purity

ENZYMES

TRYPSIN and AMYLASE in pure, homogeneous and stable form, accurately standardized for the manufacture of bate, desizing products etc., and READY-MADE DESIZING PRODUCTS for the textile industry

NOVO INDUSTRI A/S

NOVO

115, FUGLEBAKKEVEJ, COPENHAGEN N

REYMANN & LOEVENGREEN
6, Gl. Kongevej, Copenhagen V.
DAIRY PREPARATIONS
Gold Medals: Rio 1923 . Milan 1924
Paris 1926 . Mantua 1926 . Grand Prix Barcelona 1930 . Brussels 1935

R L

MEDICINAL
PRODUCTS

Antibiotics Hormones Enzymes
Vitamins Heparin Alkaloids
Synthetics

LEO

LEO PHARMACEUTICAL PRODUCTS
Copenhagen — Denmark

INSULIN
PENICILLIN
STREPTOMYCIN
TRYPSIN
HEPARIN
CATGUT

NOVO

NOVO INDUSTRI A/S
115, Fuglebakkevej, Copenhagen N

ENGINEERING

Harbour construction, bridge building, railways, dams **HØJGAARD & SCHULTZ A/S**
9, Ewaldsgade, Copenhagen N

MONBERG & THORSEN, Ltd.
2, Kultorvet . Copenhagen K
Bridges . Harbours . Silos . Industrial Buildings . Foundation Work

---

J. G. MOURITZEN & Co. Ltd.
Dredging and Reclaiming
18, Linnesgade
Copenhagen K
Telegr. Sandsugere

FORWARDING

ADAMS TRANSPORT CO.
Danish Limited Company
Established 1884
Head office: 30, Danasvej, Copenhagen V
Cables: ADAM
International Forwarding, Air freight and Shipping Agents
Packers. Storers. Insurers and Furniture Removers

VARIOUS

A/S Burmeister & Wain's
Maskin- og Skibsbyggeri
Copenhagen K, Denmark
Telegrams: BURMEISTERS
Diesel Engines, Motorships, Steel Castings, Cast-Iron Forgings, Steam-Boiler Plants, Steel Constructions

---

Plastic Raw Materials and Semi-Finished Goods

for the Plastics Industry, for Building Purposes, for Packing Purposes; P. V. C. Plastic Sheeting

DANOKAN
4. Sjeleboderne (Montergaarden.)
Cables: Kahncomp. Telephones: Byen 3090—3099
Copenhagen — Denmark

LABORATORY APPARATUS
FOR
RESEARCH, INDUSTRY & EDUCATION

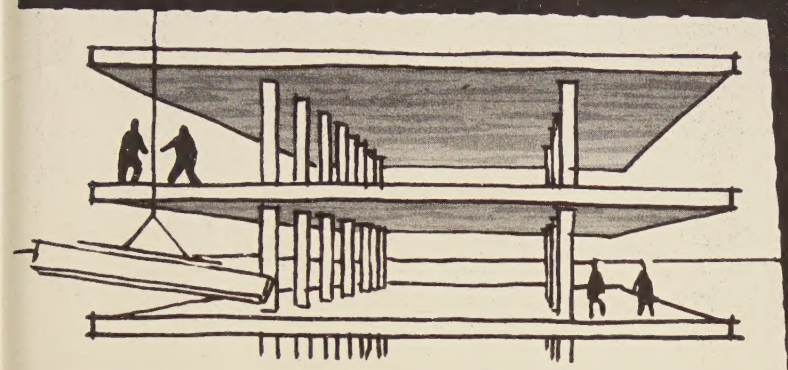
STRUERS

COPENHAGEN TELEGR.: STRUERS

TOROTOR

TOROTOR A/S
Manufacturers of radio and television components
6, Kollegievej, Chl., Copenhagen . Tlgs.: "Torotor"

DANISH CEMENT PRODUCTS
for many uses
-preferred for quality



WHITE PORTLAND CEMENT

- combines strength with dazzling whiteness - for all decorative purposes, e. g. floor and face slabs, front units, artificial stone, rendering, etc.

COLOURED CEMENT

- in 16 light- and lime-fast standard colours - used for decorative purposes, like White Portland Cement.

CEMPEXO WALL PAINT

CEMPEXO

- the Danish cement paint - available in beautiful light- and lime-fast colours besides white; water repellent; will not rub off; inexpensive in use; easy to apply.

PORTLAND CEMENT

in the world-famed Danish quality exceeds the requirements of standard specifications of all principal countries.

RAPID CEMENT

- rapid hardening Portland cement - for concrete work to be completed quickly, for concrete ware, and for concreting in cold weather.

SUPER-RAPID CEMENT

- extra rapidly hardening Portland cement - for urgent concrete jobs, for prestressed concrete and for concreting in cold weather.

HIGH SULPHATE RESISTANT CEMENT

- ASTM Type V Portland Cement - for marine works such as quays, jetties, groins, breakwaters, etc.

LOW-HEAT CEMENT

- Portland cement developing the heat of hydration slowly - for placing of large concrete masses, such as dams.

Export to all parts of the world

A/S DANSK CEMENT CENTRAL

Selling Organisation of
Aktieselskabet AALBORG PORTLAND - CEMENT - FABRIK
Telephone: Central 5696
Telegrams: Cementcentral - Teleprinter: 2330
28 CHRISTIANS BRYGGE - COPENHAGEN V - DENMARK

DANSK CEMENT CENTRAL

TIVOLI
ALEX SEKHER